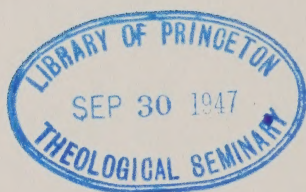
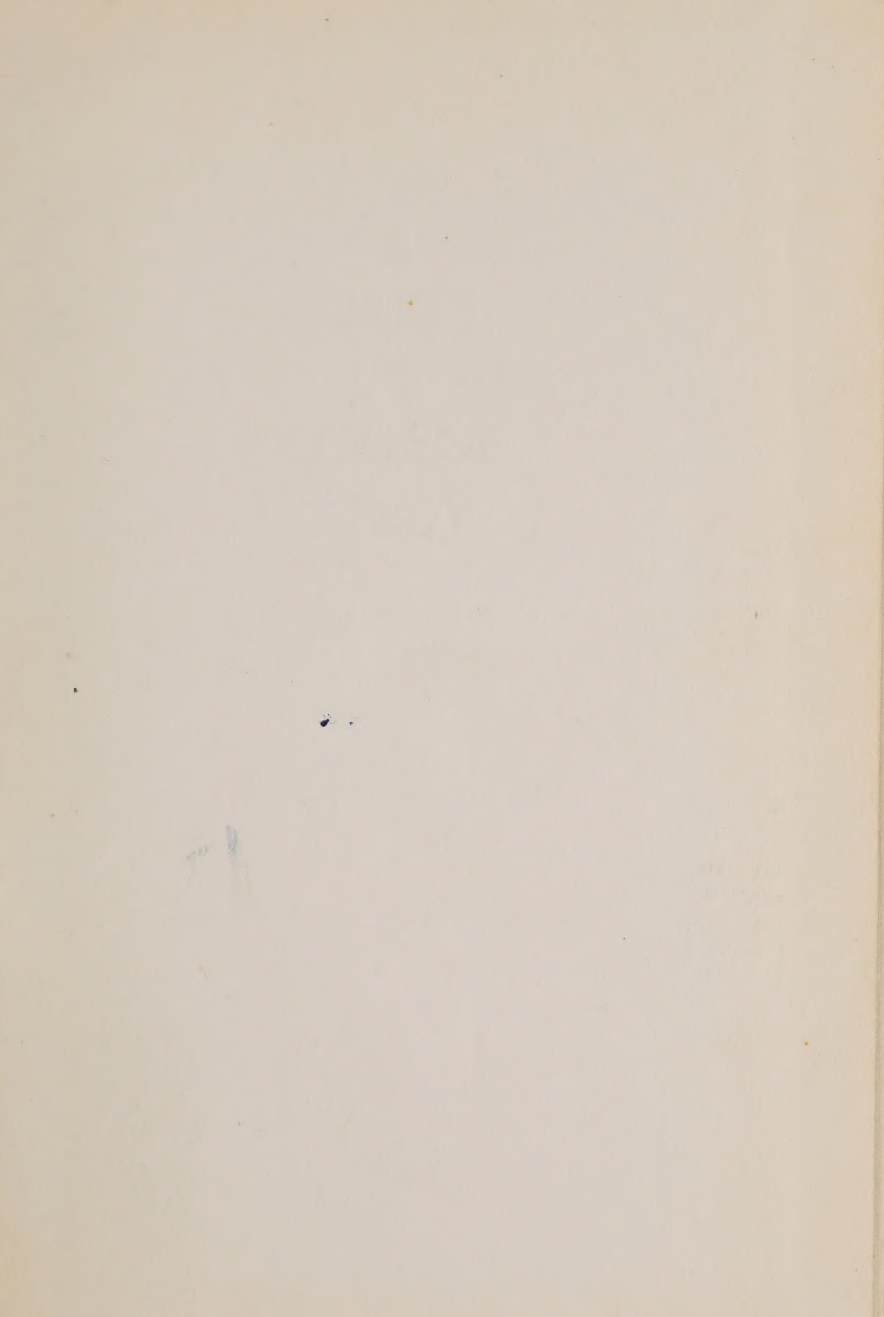



A  
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A  
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TO  
COLLEGE  
STUDY

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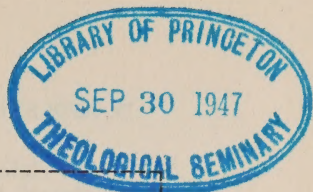
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New York & London

**D. APPLETON-CENTURY COMPANY**



A  
GUIDE  
TO  
COLLEGE  
STUDY

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## Preface

The transition from high school or preparatory school to college is at best difficult. The beginning college student will find that the new experience is almost inevitably accompanied by new problems. He will achieve success in college to the extent that he is able to resolve these perplexities.

This book is written to help the college student only with his studying. The fact that we have chosen to let others deal with such problems as health, finance, athletics, clubs and fraternities should not be taken to mean we have no appreciation of their importance to the student or of their fundamental values. In the preparation of this volume it early became clear that our purpose would be better served if we confined our attention to the single job of the student and his study. This decision was reinforced by the conviction that attendance at college is above all else a chance to learn.

The primary intention of this book is to permit college freshmen to profit by the experiences of others. Practicing simple and sound psychological principles relating to study and learning is a far more economical procedure than attempting to develop efficiency through trial and error with experience as the only teacher. No attempt has been made to make this book an exhaustive treatise on psychology. Rather we have endeavored to bring together, in a readable and usable form, the best conclusions of psychology of learning and long years of experience with college students.

This key to college study will be beneficial to the extent that the user realizes that the reading of rules is not the goal. Only the application of the principles in daily living and

studying will lead toward acquisition of those skills that create success and satisfaction not only in college but also throughout life.

R.W.F.  
P.C.K.  
A.R.McE.

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PART 1

Effective Study



# 1 The College Student and His Study

You are in college or at the university and that fact means that you are the one in a hundred who has climbed so far up the education ladder. You have joined that select group of American youth which has the big chance. Some of you have broken the home ties perhaps for the first time; all of you are on your own. Success or failure lies with you—and you alone. For you the great adventure has started. You have the chance to make your own way in the world. We wish you luck, but more than that, we write this book which we hope will help you.

Half the value, or maybe one-fourth or one-eighth, of going to college is in getting away from all the ties that heretofore have bound you. You have the chance to make a fresh start with a new group in new surroundings. Life has begun for you at seventeen, or eighteen, or twenty-five, or wherever you are on the way through your expected three score years and ten. You may have made mistakes in prep school or high school. You may possibly have been too aloof. Perhaps you didn't study very hard. Maybe you didn't keep in good physical shape. You, like everyone else, can do better than you have done. Going away to college gives you a chance to do a better job, for your new friends and instructors will know you only as the person you now are or the person you may become.

Henry Ford didn't go to college, Harry S. Truman didn't go

to college, but most of the leaders in the world today did. To be a doctor, lawyer, or a merchant in modern America, you must go to college. The old rhyme did not include the engineer, the weather specialist, the navigation officer and the English professor, but they had to go to college too. The arts and sciences by which we live have grown so vast in scope and so complicated in detail that all men and women who aspire to leadership, service, and a living wage must attend some institution of advanced study beyond the secondary school. *The New Yorker* may print humorous cartoons showing a bootblack with a degree of S.S., but behind the gag is the real truth that since Archimedes, Galileo, Bacon, Faraday and Michelson, the body of human knowledge about our planet and the people who live on its surface has grown so large that any person who presumes to nurse the sick or build the bridges must have an education.

### **COLLEGE IS DIFFERENT FROM HIGH SCHOOL**

College is not high school or prep school. You have four or five different professors, perhaps in different buildings. Each professor is jealous of his reputation and yours. Heretofore you have had reasonable assignments, but now they come thick and fast and huge. You will not be kidded or coaxed into working, although the dean may mail you a warning if you don't work. It's up to you to buckle down to solid effort. The college wants to see if you have the stuff of which success is made, to see if you can live up to the guess it has made that you can handle college work. To wash out will not be a disgrace, but there is an "if." To wash out will be no disgrace to you, to your prep school, or to your family *if* you have given all you have locked up in your mind and heart. The college today does a great deal to help students succeed, but the final responsibility is still the students'.



### **AN EARLY START IS IMPORTANT**

That the first hundred years of life are the hardest is a philosophic generalization of doubtful validity. That the first two years of college are the hardest is a conclusion with which all college people will agree, and the most difficult part of college or of any new course is the first part. First impressions do last, and the impressions you make during the first days of college or of a new course with a new professor will last. Professors are human too. The suggestion that you study hard the first week, the first month, and the first semester has a sound basis in the fact that many courses are sequential. What you do tomorrow frequently depends on what you have done, or not done, today. Well-organized bodies of knowledge move from the fundamental to specific applications and to exceptions. The fundamentals come in the first part of the course. If these fundamentals are missed or are foggy, then that which follows will be missed or foggy. The time to begin to prepare for the final examination in course 230.56 is the first day and the first night of the term. All this discussion means, do your first assignments thoroughly, bear down the first month. Besides you might get the habit of regular systematic work and like it.

### **STUDYING IS MANY DIFFERENT THINGS**

Studying in college involves many different intellectual activities. Colleges and universities together represent most of the many accomplishments to mankind's credit. It is largely on the campus that men of science explore the structure of the atom and the vastness of the universe. The "ologies" flourish in the atmosphere of intellectual effort found nowhere in such concentrated form as on the college campus. Men of letters and research scientists in industrial laboratories are almost

without exception university-trained men, and in many cases part-time college professors too.

Because the campus is the center of every type of intellectual effort, it is quite natural that the college student should be introduced to many different study processes. All intellectual work has elements in common, but distinguishable types can be identified. *Reading*, for example, is a process the student as well as the scholar will use in almost all fields of specialization. The mathematics major as well as the sociology major will of necessity read a great deal. Because of reading, the library is the center for much of the student's effort and is frequently the pride of the college. For the same reason, books play a large part in the student's academic life. Some colleges base large parts of their work on the reading of selected books. The expert student reads efficiently and knows how to utilize the resources of the library.

The making of notes and the keeping of notebooks are study skills made necessary by the need of keeping a great deal of information in convenient forms. The lecture, the book read, the experiment concluded are preserved in digest form in the student's notes. The successful student must therefore master the art of note making and notebook keeping.

Many kinds of *writing* and *speaking* will be required of the college student. He frequently will be asked to write themes, term papers, departmental essays, and special study reports. Because of the importance of writing and speaking skills, colleges commonly require of all freshmen a course in English composition and sometimes special speech courses. The age of cheap, rapid printing and cheap paper and the universality of the radio and talking films all contribute to the ever wider use of written reports, discussions, arguments, and debate. The ability to put down in writing anything from radio gags to serious sociological reports may be beyond the

average student, but the chances are great that whether he be bond salesman or chemical engineer, he will have need of the ability to convey thoughts by writing and speaking. It is natural and reasonable, then, that the college student be required to learn to write and to speak well.

College study is different from secondary-school study not only in the fact that there is more of it but also in the fact that college study places a premium on *thinking*. Man is a rational being at least part of the time largely because man is a student. The ability to manipulate data mentally and arrive at a conclusion to which men of equal intelligence will subscribe is the pinnacle of man's intellectual effort. College students will survive and prosper only as they think. Any book that presumes to be of service to the college student must consider the difficult, but important, skill of reflective thinking.

#### USE THE FACILITIES THE COLLEGE OFFERS

The modern college is an expensively equipped and generously staffed establishment. Resident deans, freshmen deans, social deans, and plain deans are there to serve you, as are also physicians and guidance counselors. Many colleges will take great pains to introduce the freshmen to all the many services and facilities at their command. The keen student will get acquainted with his college so that he may get the most out of his college life.

The range of extra-curricular student activities of the modern college offers rich opportunity for important learning and for fun. Each student should early pick out the area of his best interests and work into a position of importance and responsibility. Some will choose athletics, others will want to work on one of the many publications, or in student government, or in musical or managerial activities. Seniors will tell you that you get out of college what you put into it, and for

this once, at least, they are right. To work for a Phi Beta Kappa key is a worth-while effort, but it does not need to be done at the sacrifice of non-study activities.

A great deal more could be said by way of good advice to the college freshman and sophomore. He could be told how to make friends, how to start a dance band, how to keep physically fit, how to handle his finances, how often to write home. The list is endless. It can be safely assumed that you are intelligent or you would not be in college, and that you want to succeed or you would not have invested someone else's money in yourself and for your future. We shall take leave of this introductory chapter and go on to consider some of the more important study skills and processes in the use of which the successful college student must be proficient.

#### QUESTIONS AND EXERCISES

1. Check your college against the following list of common college facilities and services. Note that the titles may vary. Have you met the person named? Have you visited or used the service named? Do you know the location of the facility or person named?

Infirmary

Physician

Nurse

Softball field

Gym

Swimming pool

Rowing tank

Bowling alleys

Squash courts

Tennis courts

Ping pong tables

Golf course

Sun deck

Freshman dean

Dormitory advisor

Resident master

Guidance counselor

Reading clinic

Employment Bureau

Graduate Placement Bureau

Bookstore

Second-hand furniture store

Second-hand book store

Swap shop

Y.M.C.A.

International Relations Forum

Political Forum

2. Write a letter home explaining why you want your own checking account or the privilege of a joint account with your father or mother.



3. How many members of your class can you call by name when you say "Hello" on the street? Make an actual check. Would it be worth while to try to improve your score?
4. How much has been invested in your college education so far? Do your accounts enable you to break the cost down into recreation, health service, supplies and equipment, and so forth?
5. Make a list of the ways in which college is different from high school. You might use this as a theme topic.
6. Good physical surroundings and equipment will help you to study. Check your study set-up against the following list:

Study desk or table	Reinforcement rings
Dictionary	Supply of lined paper
Pen	Supply of plain paper
Ink	Supply of squared paper
Colored pencils	A thesaurus or dictionary of synonyms
Ruler	Handbook of English usage
Book shelf or book ends	World atlas
Adequate study light	A foreign-language dictionary (for the language you may be studying)
Scissors	Personal financial account book
Scotch tape	Supply of stamps
Paper clips	Supply of envelopes
Stapler	Supply of letter paper
Paper punch	
Typewriter	
Several large loose-leaf notebooks	

## 2 How to Improve Study Habits

That "brilliant" student you knew in secondary school who had time for all sorts of extra-curricular activities and still made excellent grades may have had a superior intellectual endowment, but a large part of his academic success was probably due to a well-organized method of study.

Proper study habits established during the academic years have a lasting value that carries over into later life. No one is ever through with the processes of learning, like it or no; for when you cease to learn you are no longer among the living. Consider professional men—doctors, lawyers, engineers—who must constantly be on their toes in order to keep up with the latest developments in their fields. Or the liberal arts graduate who sought and found in college a general comprehension of the broad bases on which our culture rests, and in the doing uncovered interests lasting perhaps through a lifetime.

Granting the desirability—or at least the necessity—of continued learning, it is obviously a matter of self-interest to learn to accomplish with the least expenditure of time and effort; and there is a very definite relationship between the quality of study habits and the length of time required to assimilate assignments for study.

Study habits and techniques are not by any means instinctive. They have to be consciously cultivated and developed to the point where the closest balance between "work-in" and "work-out" is achieved. But once acquired, study habits stick

with you. To get the most out of study time, follow the list of suggestions offered below.

### **PROVIDE THE PROPER STUDY CONDITIONS**

#### **Find a quiet place**

Evidence has proved that a definite and quiet place for concentration is conducive to progress in study. It should not be necessary to develop the habit of starting your work at midnight when all others have gone to bed. Room-mates can agree on study times, and fraternities, dormitories, and boarding houses can establish free and restricted times. Hospitals have restricted visiting hours so that the necessary work can go on. Even hotels shut off the room radios at a stated time.

Generally the library is quiet although the fact that you can't always smoke may rule out the library for some. Particular kinds of college work, reading, thinking, planning can be done on a bench in a corner of the campus. There was once a student who did his reading in the waiting room of the Union Station because the number of people present made distracting interest in any one person or group rare.

A catalogue of the things that take your mind off your work will be helpful in finding a place to study which has a minimum of distractions. Studying is a full-time job. Success is important to you. The effort to analyze your best working conditions will pay dividends. It is a mark of strength to mold your life rather than to submit to ruinous distractions.

#### **Be comfortable**

It is not now considered criminal or psychologically unsound to be comfortable. We have made progress! During the Middle Ages the scholars and saints were supposed to be hungry, cold and uncomfortable, and they were proud of their ability to rise above elemental creature comforts. The

twentieth-century world no longer glorifies the hard bench. A scientific age makes the suffering of bitter colds or a tooth-ache a technological sin. Today we can be comfortable with a clear conscience.

You may have been told to sit in a straight chair with your feet flat on the floor while studying. The doctrine of denial is not defensible if modern psychological thinking can be trusted. Get comfortable. If you like the room hot, have it hot. Get into your pajamas if you want to take off your shirt and tie. Mark Twain, you may recall, did most of his writing in bed; President Roosevelt carried on important state business and many conferences in his bedroom.

Obviously if too much comfort makes you fall sound asleep, collegiate interests are not well served. Within this physiological limit you can be as comfortable as you wish. In fact comfortable surroundings are helpful to good work. Studying should and can be fun. No good purpose is served if you permit drafts, noise, squeaky chairs and a strained position to fatigue you unnecessarily.

### **AVOID UNNECESSARY DISTRACTIONS**

The business of settling down to sustained intellectual work can be accomplished in a boiler factory, but there is no reason to give yourself unnecessary hardship. Wagner may have composed music best in the midst of a big party, but he was an exception. Most people work better with a minimum of distractions. A quiet, restful, comfortable room, not too hot and not too cold, is generally conducive to time-saving, concentrated effort although there are many exceptions. Of these exceptions we should be careful, for the belief that we study best with the radio on may be a defense for the fact that we like the radio better than the studying.

Distractions are personal. What takes your mind off your

work depends on your habits of work. The thundering of the trains along the main line of the C. M. and St. P. may not distract one who is used to the sounds, but to a prairie farmer accustomed to the katydids, it might make work and even sleep impossible for several weeks.

Generally, people are most distracting, especially when in conversation that you can't quite hear. For the same reason talking radio programs are to most people more disturbing than music. This fact is natural, for people are the most interesting things in the world.

### **WORK AND FUN MIX ONLY WITH HEAT**

A group studying together can have a lot of fun if studying is fun for all. Work and fun don't mix if the fun is not an integral part of the work. A strong fire of interest may make even studying hilarious, but side-line fun as, for example, a nearby bridge game, can serve only to dilute concentration. To concentrate on a class assignment is possible in a group and can be fun if interests are very strong. Other types of fun are almost always distracting. To attempt to work on a research theme and fill in at a piano party can result only in neglect of the theme or the music. The safest rule to follow is to study when you study and to play when you play.

### **MAINTAIN A STUDY SCHEDULE**

Employers in life situations usually indicate when and how their employees must work. In college, students without a planned program frequently work when and how they please. These students run the risk of facing disappointment and even failure both in college and in life.

The planning of a time schedule is the foundation of a development of efficient study habits. The greatest hindrances to college study are usually considered to be irregular, un-



planned study hours; interruptions during study hours; surroundings not conducive to study. Therefore, it ought to be a major concern of the serious student to eliminate such handicaps by devising a productive study schedule.

It is impossible to print a schedule that will be ideal for students in general. There are individual differences in the number of college credits carried, in the number of hours of remunerative employment, in intelligence, interest, physical condition, and innumerable other factors. Each student must devise a schedule which will satisfy his particular needs.

In a *time form* (see the sample on p. 15) the student should keep a careful record of his activities for one week. Then he should total his hours for each activity on a *summary sheet* (see sample on p. 16); he will then realize just how he spends his time. One member of a how-to-study class, who carried out these two tasks exactly, was amazed to discover that he spent only 20 per cent of his time in academic activity: fifteen hours in class and eighteen hours in study. Had he continued to spend his time in such a weekly routine, he surely would have been dropped for poor scholarship at the end of the semester.

At the end of one week of time-budgeting and watching the distribution of hours, a good student sets about working out, with careful planning, a permanent time schedule. Here are a few suggestions that are valuable for all:

1. Health authorities say that a person should sleep fifty-six hours or 33.3 per cent of the week.
2. College advisors indicate that a student should schedule fifteen to twenty-one class hours or 9 to 12 per cent of the week.
3. College professors believe that a student should spend at least two hours in study for every hour in class, that is, thirty to forty-two study hours or 18 to 25 per cent of the week.

## TIME FORM

<i>Hour</i>	<i>Mon.</i>	<i>Tues.</i>	<i>Wed.</i>	<i>Thurs.</i>	<i>Fri.</i>	<i>Sat.</i>	<i>Sun.</i>
7:00 A.M.							
8:00 A.M.							
9:00 A.M.							
10:00 A.M.							
11:00 A.M.							
12:00 noon							
1:00 P.M.							
2:00 P.M.							
3:00 P.M.							
4:00 P.M.							
5:00 P.M.							
6:00 P.M.							
7:00 P.M.							
8:00 P.M.							
9:00 P.M.							
10:00 P.M.							
11:00 P.M.							
12:00 P.M.							
1:00 A.M.							
2:00 A.M.							
3:00 A.M.							
4:00 A.M.							
5:00 A.M.							
6:00 A.M.							

## SUMMARY SHEET

<i>Activity</i>	<i>Mon.</i>	<i>Tues.</i>	<i>Wed.</i>	<i>Thurs.</i>	<i>Fri.</i>	<i>Sat.</i>	<i>Sun.</i>	<i>Total for Wk.</i>
Sleep								
Class and Lab.								
Work for pay								
Study								
Meals and Dressing								
Recreation, Rest								
Extra-Curricular Activities								
Dating								
<i>Total Hours</i>	24	24	24	24	24	24	24	168

To these three major activities, each student should be devoting from 60 to 70 per cent of his time. This leaves forty-nine to sixty-seven hours, 30 to 40 per cent of the time, for bathing, dressing, eating, traveling, telephoning, exercising, dating, and other miscellaneous activities.

Psychologists tell us that efficient learning results from well-spaced study hours. The serious student does more than merely space the study hours: he spaces them effectively by arranging to study certain material during periods that immediately precede or follow the class hour where those materials are under discussion.

There follows a sample *freshman schedule*. This particular arrangement of the days' activities will give ample time for creditable completion of academic assignments and a fair share of relaxation and enjoyment. Moreover, the student will be developing habits of punctuality, reliability, and dependability. The effectiveness of any study suggestions, however, will be determined by the intensity of the student's desire to learn. Also, he must remember that he can't develop habits in a day; to do so requires constant practice.

### REVIEW FREQUENTLY

Spreading learning over the semester is more effective than cramming it all in at the end of a semester. Studying for too long at a sitting brings into the picture two factors fatal to efficiency: fatigue and boredom. Repetitions over a period of time make for more economy in learning. Moreover, new meanings are likely to appear. Spaced study hours are known to create more thorough understanding and, therefore, more permanent retention.

Some students complain that examinations are terrifying experiences that ought to be eliminated from the college calendar. When questioned about their preparation for the

## FRESHMAN SCHEDULE

<i>Hour</i>	<i>Mon.</i>	<i>Tues.</i>	<i>Wed.</i>	<i>Thurs.</i>	<i>Fri.</i>	<i>Sat.</i>	<i>Sun.</i>
8:00 A.M.	Eng. Lit. 4	Study Zoology 3	Eng. Lit. 4	Study Zoology 3	Eng. Lit. 4		
9:00 A.M.	Study Fr. 1	Zoology 3	Study Fr. 1	Zoology 3	Study Fr. 1	Study Pol. Sci. 3	
10:00 A.M.	French 1	Phys. Sci. 7	French 1	Study Eng. Comp. 1	French 1	↓	
11:00 A.M.	Pol. Sci. 3		Pol. Sci. 3	↓	Pol. Sci. 3	Study Eng. Lit. 4	
12:00 NOON	LUNCH						
1:20 P.M.	Eng. Comp. 1	Study Eng. Lit. 4	Eng. Comp. 1	Study Phys. Sci. 7	Eng. Comp. 1	Study Eng. Comp. 1	Study French 1
2:20 P.M.	Phys. Ed. 11	↓	Phys. Ed. 11	Phys. Sci. 7			Study Pol. Sci. 3
3:20 P.M.				Study Eng. Comp. 1	Study Eng. Lit. 4		
4:20 P.M.	Study Zoology 3	Study Fr. 1	Study Zoology 3	Study French 1	↓		
5:00 P.M.	DINNER						
6:00 P.M.	RECREATION						
7:00 P.M.							Study Eng. Comp. 1
8:00 P.M.	Study Pol. Sci. 3	Study Pol. Sci. 3	Study	Study Eng. Lit. 4			
9:00 P.M.	Study	Study Eng. Comp. 1	Study	Study Pol. Sci. 3			

Class Hours—18  
Study Hours—33



examination, they proudly reply that they studied hours and hours just beforehand. This practice is contradictory to principles of good learning. Cramming may serve the immediate purpose, passing the examination, but it does not build a solid foundation for permanent learning. The student must remember that upon graduation he is judged by what he can do and what he knows rather than what examinations he has passed.

Constant review, not cramming, is the practice that will lead to elimination of the fear of examinations and will enable the student to retain what he has acquired. Through daily and weekly reviews the student comes to associate the new with the old. In this way, preparation for a final examination begins on the first day of the semester.

#### **KEEP A PROGRESS RECORD**

A knowledge of improvement is a strong motive to bigger and better improvement. Students enrolled in special classes for the development of basic reading and study skills kept a careful record of rate of reading over a semester. At the beginning of the training, they required about four minutes to read one thousand words; at the conclusion they were reading material of the same length and difficulty in one minute and forty-five seconds. The gradual improvement over the semester was a constant incentive to gain more speed.

A few students had difficulty selecting central ideas. A record of their responses showed that at the beginning they were wrong five times out of ten. With continuous practice, the students showed gradual gains and eventually earned perfect scores in locating main ideas.

Some students earned failing grades in spelling even on a fifth-grade level. With special training these individuals showed marked progress over the semester. Even the slowest

gained at least three grade levels in spelling ability. Each one kept a careful record of his scores from day to day.

In all these cases the stimulus of success released more energy and built more favorable attitudes toward learning. Keeping a careful record of the results of daily activities urges the student to aim at higher and higher levels of scholastic performance.

### GUARD YOUR HEALTH

#### Eight hours' sleep

Some students feel that it is collegiate to sleep but three or four hours a night; however, scientific college study schedules indicate that fifty-six hours of the week should be spent in sleep. Eight hours a night are required if an individual is to feel rested and refreshed.

#### Exercise

Regular, mild physical activity clears the mind of cobwebs, expands the lungs, aids digestion, and buoys the spirit. Students who overexercise or who, on the other hand, are too sedentary violate an important principle of health and efficient study habits. Most campuses afford excellent opportunities for *brisk* walks and systematic gymnastics; only the thoughtless student neglects these advantages.

#### A balanced diet

College students must be continuously reminded that they must eat sufficient and well-balanced food in order to keep in good physical condition. Green vegetables, fresh fruit, and milk are dietary necessities. Improper and insufficient food is the cause of much ill health, which, in turn, creates a dislike for school work. The net result is eventually an inefficient, possibly a failing, student.

**STUDY AS SOON AFTER CLASS AS POSSIBLE**

There is a real thrill in being on top of your work. To be master of your work rather than its slave requires concentrated effort. Good planning is a help in getting at your many jobs, for they do come thick and fast. One great help is the habit of doing the assigned job as soon after it is assigned as possible. For example, you are told on Wednesday to read one book from each of the three groups on a mimeographed list. The best thing is to take the list to the library right after class and pick out the three books. That evening you get started on the first, that week-end you read the second, and by next Wednesday you have done all three books and prepared the necessary reports in rough form. You are ahead of the game and will be free from the worry of that particular job. It has to be done sometime. All advantage is on the side of doing the work right away.

During the month that follows your reading, you can participate in discussions of these books, compare with the books your classmates are reading. Watch for reviews or references to your books. Just before the reports are due, you can revise and perfect your reports. The whole process takes no more time than is required to do the reading the last week before the due date. You have the advantage of being able to get at other jobs untroubled by the thought that your work is piling up. Thus your attention is more clearly centered on each job.

Furthermore you may run into complications the week-end before the due date. That may be homecoming week-end, or a big week-end in the city may turn up or you may be laid low with the measles. You have heard all your life that the early bird catches the worm, that a stitch in time saves nine, that it is wise to strike while the iron is hot. You have made

fun of these homely statements of preachy philosophy. It is, for the college student at least, irrational to dismiss the good counsel of generations of experience with a smart crack. There is something to the idea of doing the job as soon after it is set as possible.

### QUESTIONS AND EXERCISES

1. On a *time form* (see p. 15) keep a careful record of your activities for a one-week period.
2. On a *summary sheet* (see p. 16) show the distribution of hours for the itemized activities.
3. Devise a study schedule (see p. 18) to satisfy your particular needs.
4. What percentage of your time do you spend in study? In sleep?
5. Can you give examples from your own experience in which improvement has been blocked by loss of interest or the presence of faulty study habits?
6. Name some instances in your college experiences where interfering activities greatly affected your remembering what you were learning.
7. Why is it useful in preparing assignments to read and study an outline of the chapter before reading the contents?
8. Name some of the practices outlined in this section which you could use to become more efficient.
9. Summarize your bad study habits; place the list above your desk and try to eliminate your weaknesses.

### 3 How to Concentrate

Studying and concentration go together like ham and eggs. The ability to concentrate is the mark of the good student of all subjects from play writing to freshman composition. The scholar is notable for his powers of sustained attention to intellectual pursuits. The story is told that Professor Chamberlain, while working on the compound interferometer at the University of Chicago, went to the darkened laboratory at seven in the morning. The room was darkened most of the time because of the necessity of using light rays. Finally he looked at his watch, to find that it was twelve o'clock. When he went out for lunch he discovered it was midnight, not noon.

No such sustained effort is demanded of the undergraduate, but to get jobs done does require some real attention. The common complaints, "I can't settle down to work," or "I can't seem to get started," or "My interest soon wanders," are real but unnecessary. There is nothing mysterious about concentration. It is a simple matter of sticking to a job. Even a child of three can and does concentrate. A dog will concentrate on a rabbit hole; an institutional inmate will stick to the task of putting colored buttons in and out of a tin can.

An individual's level of maturity may be measured by the complexity of the assignment which evokes concentration. Attention to a dancing partner is relatively easy and has a kindredship with the same general area of effort throughout



the animal kingdom. Such concentration is natural and common and, therefore, not particularly praiseworthy. The phrasing of the lines of a play or an essay mark one level of maturity whereas close attention to the stringing of the beads indicates another level. The successful student must concentrate on a definite area set by his program and instructors. He must concentrate by direction rather than by instinct, appetite or free choice. The best the student can do is to select his general area or his major field, and even in this chosen area there will be many assignments that will call for effort-attention rather than natural or easy concentration.

The fact that concentration must be sought, that it does not come naturally like the ability to concentrate on football plays, should not alarm anyone. Even the professor, and certainly the bond salesman and the author, must at times and for particular phases of their work force themselves to concentrate on the next job. There are few "natural" scholars. The shark in mathematics may have to "take steps" with himself in English. But life is like that outside the college as well as on the campus. The ability to direct oneself to a particular job at a particular time is of considerable importance to all effective persons in every walk of life.

### **CONCENTRATION IS A MATTER OF INTEREST**

In a very real sense the ability to concentrate depends on the extent of interest. In fact there can be no concentration without interest. The two terms might well be used interchangeably. Fortunately there are many kinds of interests other than the natural interest in dancing partners, games, and food. Interests may be acquired or cultivated as well as gifts of nature; study, understanding, association all may lead to acquired interests. The welfare of the Hottentot may become of interest if by study we see a relationship between his health

and economic life and our own welfare. A boy who is interested in poetry may under favorable circumstances foster an interest in poetry in his room-mate. The careful selection of companions will aid in the cultivation of desired interests and thus the ability to concentrate.

Some interests are an intrinsic part of the activity as, for example, the interest in a good novel. The interest lies within the material and the act of reading. Other interests must be extrinsic or a condition or resultant. If, for example, the sophomore works on his required history only because he has to get credit or drop out of college, his interest may be said to be extrinsic. There is nothing necessarily wrong with the extrinsic interests except that they make hard going especially in the matter of studying. It may be claimed that the interest in a grade is lower than the interest in a subject of study, but one may be permitted some extrinsic interests provided there are some other fields in which study is fun and concentration on the work is possible without thought of a mark. That the man or woman is happiest who loves his work is an easily explained cliché when it is understood that interest, natural or acquired, makes attention to work easy and that intrinsic interests are usually found to be more sustaining than extrinsic interests.

It would be unfair not to give to each subject and each instructor a chance, for interests may be delayed rather than immediate and spontaneous. Interests have to grow. There is love at first sight, but most attachments develop out of long and pleasant association. To throw the book aside after five minutes' effort is not giving the work a chance. If after working hard, doing each assignment carefully, showing an interest in class and talking over the subject in bull sessions for half the semester, the subject still leaves you cold, then you may conclude that the field is not for you and that you will have

to rely on such extrinsic interests as your craving for a passing mark, a college degree, football eligibility, or a Phi Beta Kappa key.

One final word must be said about interests and college success. It is given to few persons to be pure scholars. Ordinary mortals are inclined to be more interested in boating, or bridge, or sports than they are in the daily grind of office or lecture room. Most of us are ordinary mortals. In undertaking to get an education to fit ourselves for a more responsible niche in life, we shall for the most part have to whip ourselves to the task, at least in some phases of our work. As habits of study develop through the months and years, it will gradually get easier to apply ourselves to study. All that can be asked in the undergraduate years is that the students give college a fair chance and that extrinsic interests, at least in our major department, be permitted to grow into intrinsic interests. Studying can be fun if one gives it a fair chance.

#### **FIND SOME INTEREST IN EACH SUBJECT**

Ernie Pyle went into journalism by default. A friend, so the story goes, was enrolling in the school of journalism, so, green kid that he was, Ernie went along. Ernie's real interest was people—ordinary people. His interest in writing was only a medium by which he could satisfy his interest in people. The successful student will find some interest to strengthen concentration on the work in all subjects. To concentrate he must have some interest. The student who wants to succeed will look over his subjects one by one and find some interest, natural or acquired, intrinsic or extrinsic, in each one. There must be some reason why the study is required by the university or why it was elected. At the very lowest level the student may get his work done regularly simply because he wants to be eligible for sports, but an honest search ordinarily will

disclose some more potent reason for the existence of all subjects in the curriculum. As a last resort a frank talk with the instructor of the subject which is threatening to throw you, may disclose a real reason why you should spend all day Saturday getting caught up.

### **WATCH YOUR ATTENTION SPAN**

The attention span is the length of time an individual can, without interruption, apply himself to a task. Attention spans vary with each individual and with each kind of work. In general, the stronger the interest, the longer the attention span, which is the same as saying the stronger the interest, the longer the period of concentration. Intelligence does not determine the attention span so much as it dictates the type of activity on which attention can easily be given. Minor breaks in work, such as sharpening a pencil or getting a drink of water, do not mean a break in attention to study, provided the thought remains dominantly with the work in progress. In fact some minor break, about every half-hour at least, facilitates work.

An hour is a reasonable period of time to set as a general period without a major break. Most college lectures are one hour long. Also the age and experience of college students makes an hour of steady work reasonable. A three-hour period with several minor breaks will probably be long enough for work on a theme or similar assigned task. A few students can work through a whole day on a special job with only minor breaks in effort for eating or a phone call. The mature student is more nearly able to put in an eight-hour academic day than the freshman.

Half-hearted attention is not only wasteful; it is inefficient, for mistakes complicate the work when attention wanders. The cast working on a play needs a break, and good directors

understand that further effort without change of attention does more harm than good.

It is literally true that studying is work. The muscles of the neck, of the back and particularly of the eyes get tired in the same physiological sense that the leg muscles of the runner get tired. There is no disgrace in getting tired of studying. The smart student plays honest with himself and regulates his study time fairly in terms of his attention span.

### **SET YOUR OWN REWARDS**

If it is admitted that a reward motive is efficacious, then it is reasonable to suggest that by setting your own personal rewards for work accomplished, you may be able to increase your concentration on the next job. Promise yourself that you will not go to the Saturday game unless your laboratory notebook is completely up to date. Then stick by your promise to yourself.

This suggestion, of course, makes use of extrinsic interest. Studies that you like offer no problem to you. It is the courses you put off until last that need some spur to effort. The college provides the whip of expulsion or athletic ineligibility. What is suggested here is that you supply your own incentives. With enough strength of character or a four-letter word equivalent you can set for yourself immediate goals to make concentration on the job in hand easier. Promise yourself that you won't play bridge or attend the glee club concert, have a date, go out of the house, leave your room or something else desirable to you until you have a particular stint of work all taken care of, and well. This principle is employed when you decide to make at least three hundred miles each day on a transcontinental motor journey before you stop for the night.

Make all your self-imposed conditions reasonable. Don't



swear to read a book of poetry before you go to bed. Don't promise yourself you will not eat until you get an *A* in geology. Your self-imposed goals should be reasonable and they should be kept. You simply make up your mind that *B* will not come before *A*. Such a process requires you to make up your mind—just as stopping smoking requires only that you make up your mind to stop. It can be done.

### ROUTINE HABITS HELP

It was Professor Thorndike who offered the suggestion that the wise man uses habitual responses to free his time for creative effort. Translated, this dictum means that certain acts such as handling a car, eating manners, time of getting up in the morning, order of dressing can be standardized so that they no longer require active attention and thought. Getting to lectures on time, preparing papers, paying bills promptly can be made easy by practice. It is just as easy to get up in time to dress without rushing and to get to breakfast with the first group rather than the last. The extra ten minutes sleep will not be missed. In fact the wear and tear of rushing is worse than the little lost sleep. It's all a matter of habit.

The habit of doing certain things at a certain time frees the mind for concentrated effort. That letter home can be written each Sunday just before church or each Wednesday just after the mathematics class between mathematics and English composition. After a short time it will be almost automatic to find a place in the library or in the lobby to write that letter. Then the week will not be spotted by, "Gee, I forgot to write home," or "I never seem to find time to write letters."

The simple fact is that the human mind likes to find channels of action. Smoking, for example, is a habit made up of a string of associated habits. Without making oneself a slave to custom, the student who has the desire to succeed will be

helped by a daily and weekly routine. There are definite advantages to studying the same course at the same time in the same place. This fact means that a weekly program must be made. About sixteen to twenty hours of the student's week is already systematized, for classes and laboratories meet at the same time in the same place each week.

One advantage of the weekly schedule of activities is that there is less chance of some important activity being left out; everything is checked regularly. The weekly schedule will have a time set aside for *work on English, two to four P.M., Wednesday in library reading room*. It may well be that on the twelfth Wednesday of the term no work in English is pending. The weekly schedule will, however, provide a check of the situation in English. The idea is sound, for college students get to be busy people, who, like the busy executive, must attend to many different things. Unlike the high-powered executive, few students have well-paid secretaries to see that the boss gets to work on the annual report to stockholders and to the business of making out the income tax. A well-worked-out schedule will serve the same function as the secretary.

### DO SOMETHING WHILE YOU STUDY

It is very difficult for many persons to concentrate mentally for very long at a stretch. The act of reading a deep historical treatise without some physical aid is a challenge to concentration which only the really top-flight students can meet. It is helpful always to do something with what is being read. The most common and most helpful something is to write. The act of writing implies a reaction, a reaction implies thinking, and thinking is studying. It is all too easy to let the words blur, the mind go dead, the book fall. Studying is an active process; not a simple soaking. The invalid lies in the

warm bath while his ruined muscles are worked by a physio-therapist whereas the well person dives into the pool and swims. The well student also does something active with the material he is studying. He may make notes, underline, work sample problems, re-word complex sentences, make diagrams, or one or more of a host of other things. The main idea is that something is done, whether it be while studying a section of a physics book or reading a chapter in an economics text.

### QUESTIONS AND EXERCISES

1. What takes your mind off your studying? Make a list of the things that distract you. Compare your list with that of a friend.
2. Make an inventory of the spots in the house or on the campus where you can do quiet intensive studying. Is there a place you can hide out to get some real work done? How does your own room stand as a place to study? Would a "Please Do Not Disturb" sign help?
3. Can you recall when and what subject you first really enjoyed studying in high school?
4. Keep a record of what you do for one week as suggested in Chapter 2. Rule a card with thirty-minute intervals indicated. Make an exact record of what you do each day all day long. Summarize your time under convenient headings as:

*Total Minutes*

<i>Routine—dressing, eating</i>	:
<i>Class and laboratory</i>	:
<i>Studying</i>	:
<i>Loafing—pleasure</i>	:

This process is called a "time study" or "time clock." More and more large offices and factories make use of time clocks to determine wages and staff needs.

## 4 How to Remember

Two kinds or types of memory work confront the college student on the campus and in his life outside the classroom or study room. The first and more common is *general remembering* or remembering the gist without using the exact words of book or professor. In this general or gist remembering, the idea is what is to be retained, not the identical words in which it was expressed. Examples of general memory are to be found in all subjects; however, the arts, social sciences, and literature probably make the greatest use of this particular kind of remembering.

*Verbatim* memorizing is called for in all subjects; but law, dramatics, science, engineering, mathematics, foreign language call for remembering the exact wording of formulas, rules, norms, laws, lines in a play, vocabulary. It is generally verbatim memory which is meant when we speak of "memorizing." In verbatim memory the range of choice of words, numbers, or symbols left to the discretion of the user is very sharply limited. In a formula such as  $P = 1 - \frac{6\sum D^2}{N(N^2-1)}$  or  $E = Mc^2$ , each letter, number and symbol must be exact or the whole thing is lost. In the same way the lines in a play must be very close to the original or the other actors will miss their cues and the play will be the actors' and not the author's. This business of exactitude is no satanic madness devised to bedevil already harassed humanity, but a simple necessity. Consider, for

example, the uselessness of a locker combination if the right number, 73, is forgotten and 37 is substituted.

The idea that education consists of acquiring understandings and of knowing how and where to find exact information has a great deal of merit. In a very real sense, it is far better to understand the broad implication of concepts such as empire, cartel, narrative, induction, mitosis, psychosis, neurosis, than it is to study to be able to repeat rules and definitions word for word from the book. The educated man is not a disc recorder which can "take" and repeat on demand the exact words of book and lecture. True education comes in understanding, appreciation, synthesis, reflection. Only the aggressive, ambitious nincompoop would try memorizing a course in any field in preference to real understanding.

It would be arrogant and presumptuous, however, to rule out verbatim memory entirely as some educators would do, for there are lines of poetry that no man is audacious enough to try to improve; there are formulas that have been hammered out by countless scientists which serve and serve well; there are definitions and foreign-language equivalents of English words with which the student will trifle at his peril. Both kinds of memory have their place. The wise student knows when to stop with the general idea and when to fix in mind the exact words, numbers and symbols in exact relationship to be used or repeated when needed "by heart."

There are persons who proclaim with false candor their inability to remember dates, names, faces, numbers, word meanings, poetry or scientific principles. Such persons are using a typical but false compensatory device, for all normal people can remember if they want to and if they go about it right. Courses in memory training thrive upon the craving of all for a good memory in the face of the fact that there is no memory "system" for all things or all people. Actually



there are no good memory systems, short of understanding, that are worth the fee, however small. People do differ in their native capacity for understanding and remembering, but there is no practical limit to improvability, given interest and attention. The extent of the variation in native ability among college students is never great enough to make application useless. One student may take longer to understand the derivation of a formula, but the time difference is never so great, but that a few games missed or dances passed up will not put the slow rememberer in the running for a degree. Any new job like hoeing potatoes or playing handball is brutally tiring at first, but with practice, when the "knack" is acquired, the activity can be carried on for long periods without knocking oneself out. In the same way the knack of remembering will come with intelligent practice. Actors can improve their skill in memorizing the lines of the play, but their inborn native capacity probably remains the same throughout their lives.

#### **SPOT WHAT IS TO BE MEMORIZED VERBATIM**

All courses and many of life's everyday activities call for "by heart," word-for-word memorizing of certain elements. In this category fall numbers, radio dial settings, foreign languages, vocabulary, scientific formulae. It is within a student's prerogative to ask if he is not certain of the things to be committed to verbatim memory. Some things, as for example metric equivalents, used often enough, will be learned without conscious effort, but the fixing in mind of exact wording is a special step requiring special effort. This extra effort should not be made if there is no real need. It is a good plan to use a special marking symbol in text and notebook to indicate parts and passages, rules, data and all other elements which need to be memorized instead of just understood and remembered.

The shopper repeating "laundry, hairpins, cleaner's, ink," and the rest of the list all the way into town is counting of no importance the inventions of paper and pencil. In the same way, the history student slaving to memorize a list of a hundred dates is wasting valuable time if the instructor has already, or will later, spot the ten or twenty required. In like manner the newly elected president of the class committing a long speech of policy to memory because of fear of speaking on his feet is not only likely to get balled up but is also making his duty needlessly onerous. All this discussion points to the time saving which can be effected simply by making certain that only those things which must be learned verbatim are systematically memorized.

#### **UNDERSTAND THOROUGHLY WHAT IS TO BE REMEMBERED AND MEMORIZED**

There is no substitute for understanding. By brute force, by constant repetition, nonsense can be learned. It can be memorized, but the effort is out of all proportion to its value. In the crowded program of the college student, brute memorizing soon breaks down, and the student goes home bewildered and bedeviled if not actually a victim of operational fatigue. When something is understood, be it a name or a chemical chain, it is almost completely learned, for anything thoroughly understood is well on the way toward being memorized. In the very process of trying to understand, to get clearly in mind a complex series of events, or chain of reasoning, the best possible process of trying to fix in mind for later use is being followed.

#### **OVERLEARN TO MAKE CERTAIN**

Sometimes a poem or foreign-language vocabulary assignment can be learned in one evening well enough to be recalled

the following day and no longer. All-night cram sessions spiked with black coffee do sometimes get students through examinations particularly of the older memory type, but they do not add to one's education. In modern college work such cram sessions will be of no avail, for few college teachers are content with bare repetition of undigested information. The practice is growing of evaluating a student's grasp of a field by means of papers, laboratory work, intelligent class contribution, and comprehensive departmental oral or written examinations. For practical as well as educational reasons, the student must *overlearn* or learn extra well the content of a course.

One's learning is more than simple repetition. The boy who stayed after school to correct his grammar by writing 1,000 times "I have gone" wrote his 1,000 exercises and then added a note to his teacher saying "I have written 'I have gone' a 1,000 times and have went home." This story may be apocryphal, but it does illustrate the fact that overlearning is not mere repetition.

To overlearn requires that the material be clear and vivid in the mind of the learner. Intelligent repetitions are essential to permanent learning, but each repetition should be made with complete understanding. Several suggestions can be given that will aid in the process of overlearning or learning well.

1. Make your own applications, examples, illustrations.
2. Try making the idea clear to a friend without referring to your books or notes.
3. If verbatim memory is required, go over the material or try to repeat at odd times as, for example, while walking alone to the post-office.
4. Reduce the material to be remembered to your own self-made system or series of numbered steps.
5. Represent the idea graphically by the use of pictorial or diagrammatic forms.
6. Say the material aloud to yourself. Walk to the window and

repeat the explanation as you would to the instructor should he pop in and ask you, or actually call on you in class.

7. Actually write out an examination question on this material that you might get at the end of the term. Then write an *A* answer to your own question. Since you now have the chance, consult the text or your notes to improve your answer.
8. Make a list of key words most useful in explaining the idea or content of this important lesson which you are trying to learn very well.
9. Put on your calendar a reminder to see if you can get an *A* on your examination question fifteen days from the time of first learning.
10. Close your eyes and get a picture of the explanation and your summary answer. Try to see it on the page. See the key words underlined.

### BEWARE OF TRICKS

If one-tenth of the time spent in learning and repeating "thirty days hath September, April, June and November," had been spent in learning that April has thirty days, July has thirty-one and so through the months, a sizeable slice of life would have been available to countless millions for enjoyable work and useful play. Students have been known to make long senseless sentences to remind them of the names and order of the phyla or the names and positions of the bones of the hand.

Almost all such tricks or mnemonic devices are a waste of time. That fire engines are red can be remembered if it is recalled that Queen Mary was the name of a boat, boats go on the water, water contains fish, fish have fins, the Finns live in a part of Russia, the Russian state color is red, fire engines rush, thus fire engines are red.

If tricks and devices ever serve a purpose they should serve with a simple thing like a telephone number. Certainly such cumbersome aids to remembering will not be of any value

in attempting to understand the place of the endocrines in the functioning of man. Consider a simple problem such as trying to remember a telephone number as Columbus 5-8365. First we have to assume that all paper is destroyed; then we have to assume that all writing instruments are unavailable—even a burnt match. No written record is possible; thus we are faced with the task of remembering. Consider the following scheme:

Columbus is easy; he is reported to have discovered America. The first five subtracted from 8 gives us the 3. The 6 is twice 3 and for the last 5 we merely have to remember that we end with the same number we started with. We now have it cold—all we have to do is remember:

1. That the man who discovered America gets into the number somehow, and it's not Ericsson.
2. That 5 is the first number; we do have five fingers on one hand.
3. Three is added, *not subtracted*, to give the 8.
4. Then comes the 3 we added.
5. Six is twice three.
6. We end with the same number we began with.
7. The first number is 5.

It's simple, the number is Ericsson 5-3865.

How much better, easier in fact, would it have been to have closed your eyes and "seen" the correct number written on the wall of your room over the mirror in huge letters and numbers.

### LEARN BY WHOLE

Analogies often lead us astray. Nowhere is this conclusion better illustrated than in the field of remembering. It would appear that since it is easier to carry a cord of wood into the garage a few sticks at a time, it would, by analogy, be easier to remember a complicated idea or to memorize a poem piece by piece or line by line.

Such is not the case. If it is recalled that *the only real way*



*to remember is to understand*, it will be apparent that the poem or play or the idea must be understood as a whole. To say this is not to deny the fact that the concept of totalitarianism aggression can be understood by first studying Italian aggression in the second and third decades of the twentieth century, then moving on to consider German and then Japanese empire forming. Long and complex historical movements must be broken down. It is clear, however, that an understanding of the causes, methods, immediate and long-range results of imperialistic ventures must somehow pull the several instances named into one over-all whole picture of aggression. If the topic is twentieth-century Japanese imperialism only, then the complete picture must put the Russian phase, the China phase, the American phase, the South Pacific phase and the MacArthur-Nimitz phase into one complete picture. It is at this point that the suggestions given on page 36 come into play, particularly the desirability of diagrammatic or graphic representation, and the list of key words.

In the learning of a poem or the lines of a play the parts are meaningful only with reference to the whole. If a line-by-line memorizing is attempted the danger is first that brute memory rather than understanding is being relied on and, second, that the connection between the parts may be lost. The person who memorizes his speech paragraph by paragraph is in danger of skipping whole paragraphs.

### **BELIEVE YOU CAN DO IT**

*Remembering hangs on understanding.* Understanding is helped by attempting to repeat or to explain. It is a common saying among teachers and students that one never really understands anything until he tries to explain it to somebody else. One good way to fix an idea in your mind for remembering is to seize every opportunity to take part in class work. To

hang back is to miss a good opportunity for added certainty and assurance in the subject. You may not make out perfectly; you may show up pretty badly, so what? The trying will have helped if you have the nerve to try again. Of course you want to give the others a chance, but take your rightful share of the opportunities for participation. Even as the halfback is amazed at his last minute gamble which won, so you in class may be amazed at the good it will do you to try. When your roommate asks for help on calculus, try to help him by explaining the work. You will help him and yourself. All life's gambles don't pay off; the back may fumble the ball. You may get hopelessly confused when you try to explain a process, but neither you nor the backfield man is worth your salt unless you try—nor will you get any place unless you step out and try again and again and again.

### QUESTIONS AND EXERCISES

1. Read the following four lines once, then try to repeat from memory. Read them again—then try to recall. Keep this up until all can be repeated. How many readings were required?  
     The golf links lie so near the mill  
     That almost every day  
     The laboring children can look out  
     And see the men at play<sup>1</sup>
2. Read the following four lines once, then try to repeat. Continue as in the exercise above. How many readings were necessary? Which selection was easier. Why?  
     Hent tent feathery fent  
     Either dither cora dether  
     Dick shandi watty shusti watty  
     Calico Tom and Tom ti watty
3. The speaker knew there would be five tables at the club banquet. He dug up five jokes. He thought of one as belonging to each table. Evaluate this plan as a remembering aid.
4. Make a set of simple rules for remembering names of people you meet.

<sup>1</sup>Sarah Cleghorn, "The Golf Course Lies So Near the Mill," from *Portraits and Protests* (New York: Henry Holt and Co., 1917).

## 5 How to Develop Vocabulary

A rich vocabulary is commonly recognized as an earmark of success in college and also in life. "An extensive knowledge of the exact meanings of English words accompanies outstanding success in this country more often than any other single characteristic which the Human Engineering Laboratories have been able to isolate and measure."<sup>1</sup> Since it has been ascertained that verbal ability is not static, but dynamic, students who have an interested concern for growth might create in themselves an appreciable change by exercising techniques designed for vocabulary development. It must always be remembered that one's vocabulary is improvable.

The student who earnestly desires to improve his ability to deal with verbal material can with profit follow the suggestions given in the following series of exercises. He can check in any standardized college level vocabulary test only those words which he is sure he knows he can define and use accurately. Only the student should know the score he earned. Then he can reexamine the test at the completion of each lesson. He should not be concerned over his score at the beginning; he should be interested, rather, in the changes in that score as time progresses. The changes will enable him to determine whether these newly acquired techniques function in attacking new words.

<sup>1</sup> Johnson O'Connor, "Vocabulary and Success," *Atlantic Monthly*, February, 1934.

## MEASUREMENT AND DEVELOPMENT OF VOCABULARY

The exercise below itemizes methods of increasing vocabulary. How many are familiar to you?

The first technique, *read extensively*, ought to be one already practiced by every college student. If one does not read newspapers, magazines, and books with pleasure, it would be worth while investigating to locate possible reading disabilities. These might be discovered easily by means of standardized tests administered, scored, and interpreted by authorities in a reading clinic. The skills in which one is deficient would be made known to him, and by careful guidance, he could become an enthusiastic reader.

The second technique, *study intensively unknown words that you find in those subjects where you are showing lowest achievement*, will bring about improvement not only in vocabulary but also in the ability to read for meaning. It is well to remember that increasing vocabulary is not merely adding to one's present stock of words; it is rather increasing one's stock of meanings. The student who is really growing in verbal ability is able to use the newly acquired words effectively in understanding others and in expressing himself.

The first two techniques are of necessity individual projects. The remaining ones can be discussed and practiced as group activities. The last nine items are bases of vocabulary-building habits which, if practiced, will serve to erase below-average standing in word meaning.

### MEASUREMENT AND DEVELOPMENT OF VOCABULARY

1. Test your vocabulary.
  - a. Use any standardized college-level vocabulary test that has two forms available.
  - b. Do not guess at meanings.

2. Use these techniques regularly for enlarging your vocabulary.
  - a. Read extensively.
  - b. Study intensively unknown words found in those subjects where you are showing lowest achievement.
  - c. Own a dictionary.
  - d. Use your dictionary.
    1. Pronounce the word.
    2. Write the word.
    3. Use the word in context.
  - e. Get acquainted with useful prefixes and suffixes.
  - f. Master the roots which are used to form large families of English words.
  - g. Get interested in the origin of words.
  - h. Search for synonyms to eliminate monotony of speech brought about by repetition.
  - i. Check on your grasp of a word by trying to give a word of precisely opposite meaning, that is, an antonym.
  - j. Analyze new words; then score your result by consulting a dictionary.
  - k. Look up two words a day; use them and make them yours.

### ROOT IS THE BASIS OF WORD FORM

Root, in philology, means the simplest primitive form which words once had; but in common usage the term *root* serves also to label the later stem forms from which new words are made.

The root is the most important part of every word that is made up of several elements. It is often a small part of a large word. The other syllables are called *prefixes* and *suffixes* according to their position in relation to the root. These various parts that go to make up a word are called its component parts, from a prefix *con* meaning "together" and a root *pon* meaning "to put" so that the term means "parts put together."

One root may appear in a great many different words that mean different things. For example, the root *duc*, from the



Latin word *ducere*, "to lead," appears in *induce*, *conductor*, *deduce*, and in numbers of others.

For every hundred different words taken from a passage at random, sixty-five are from Latin and Greek. In scientific and technical writing, the proportion is sometimes still higher. The conclusion which must be drawn from these figures is that a knowledge of salient Greek and Latin roots is of enormous importance in a rapid extension of English vocabulary. As a short-cut to word-mastery, a systematic attack at the study of the basic Latin and Greek roots will be the most rewarding.

### LATIN AND GREEK ROOTS

#### 1. Latin roots and their English equivalents

<i>capere</i> —to take	<i>aqua</i> —water
<i>cedere</i> —to yield	<i>caput</i> —head
<i>claudere</i> —to close	<i>dominus</i> —master
<i>credere</i> —to believe	<i>fors</i> —chance
<i>ducere</i> —to lead, draw	<i>gradus</i> —step
<i>facere</i> —to do, make	<i>locus</i> —place
<i>ferre</i> —to bear, carry	<i>mare</i> —sea
<i>ludere</i> —to play	<i>miles</i> —soldier
<i>mittere</i> —to send	<i>pes</i> —foot
<i>pendere</i> —to hang	<i>populus</i> —people
<i>ponere</i> —to place	<i>tempus</i> —time
<i>portare</i> —to carry	<i>ver</i> —spring
<i>specere</i> —to see, look	<i>vir</i> —man

#### 2. Can you think of three words from each Latin root?

<i>caput</i>	<i>pendere</i>
<i>mittere</i>	<i>vir</i>
<i>specere</i>	<i>ferre</i>
<i>ducere</i>	<i>pes</i>
<i>mare</i>	<i>cedere</i>

#### 3. Greek roots and their English equivalents

<i>aster</i> —star	<i>ge, geo</i> —earth
<i>chroma</i> —color	<i>gramma</i> —letter
<i>chronos</i> —time	<i>graphein</i> —write

<i>helios</i> —sun	<i>pathos</i> —feeling
<i>heteros</i> —others	<i>phone</i> —sound
<i>hudor</i> —water	<i>polis</i> —city
<i>logos</i> —speech, science	<i>pseudo</i> —false
<i>metron</i> —measure	<i>psyche</i> —soul, mind
<i>orthos</i> —correct	<i>theos</i> —god
<i>pan</i> —all	<i>therme</i> —heat

4. Can you think of three words from each Greek root?

<i>phone</i>	<i>helios</i>
<i>pathos</i>	<i>chroma</i>
<i>psyche</i>	<i>chronos</i>
<i>theos</i>	<i>pan</i>
<i>metron</i>	<i>hudor</i>

5. What is the root of each word listed below? Can you indicate whether it is of Greek or Latin derivation?

translator	centipede	spectacle
exclusive	dialogue	location
monochrome	postlude	orthodox
geography	aquatic	verdant
imply	postpone	pseudonym
psychology	thermometer	portable
degrade	pathos	

6. Explain the meaning of each underlined word:

- a. In the eyes of the German people, Hitler was almighty.
- b. The baker comes each day.
- c. In the kingdom of the blind, the one-eyed are kings.
- d. In the foreground are the hillocks.
- e. Wooden furniture dotted the lawn.
- f. Seventeen is playing in the local theater.
- g. He admires the results of their labor.
- h. The German troops have annihilated the whole division.
- i. The death of Webster antedated the Civil War.
- j. The remodeling plans called for a circular staircase.
- k. The editor returned the manuscript.
- l. Fair weather is predicted.
- m. Subordinate pleasure to duty.

- n. Continued misconduct on your part will mean your being ejected from college.
- o. The newspapers contradict one another in their comments on political candidates.
- p. How many degrees are there in the circumference of a circle?
- q. Preparedness very often averts disappointment.
- r. The faculty will convene during the first week of next month.
- s. A bit of water will revive that plant.
- t. The supervisor will be on duty until six o'clock.

### THE USE OF THE PREFIX

Many of our English words are called derivative words. That means that they have been formed by adding a letter or letters to the beginning or end of a simple word. If the syllable precedes the root, it is called a prefix.

Let us analyze this word, *prefix*. *Pre* means "before," and the root, *fix*, is derived from a Latin word meaning "to fasten." Therefore, a prefix is a group of letters *fastened before* a root to change its meaning. *Pre* and *fix* are called the component parts of the word, *prefix*.

Becoming familiar with the composition of words will serve as an invaluable aid in spelling and using a vocabulary that will express thoughts clearly and effectively. It is desirable to form the habit of always looking for the derivation of a word when consulting the dictionary. One is far more likely to remember the meaning of the word if the meaning is related to the component parts of the word. It is this relating process that is an asset particularly for those who have difficulty in enlarging vocabulary.

The memorizing of the tables of prefixes will lighten the labor of deciphering new words for meaning. The Latin and Greek prefixes are used so much in the coining of English

words that it is essential to make them a part of your mental equipment.

It will save time in any vocabulary building project if the student aims to do the following:

1. Learn the prefixes.
2. Do the practice exercises carefully.
3. Break down new words into their component parts.
4. Build words freely by adding different prefixes to a certain root.

### LATIN PREFIXES

#### 1. Latin prefixes with English equivalents

<i>ab, abs</i> —from	<i>inter</i> —between, among
<i>ad</i> —to	<i>intro</i> —within
<i>ante</i> —before	<i>per</i> —through
<i>bene</i> —well	<i>post</i> —after
<i>circum</i> —around	<i>re</i> —back
<i>con (col, co, com)</i> — with, together	<i>retro</i> —backward
<i>contra</i> —against	<i>se</i> —apart
<i>de</i> —from, down	<i>sub</i> —below
<i>dis</i> —apart, from not	<i>super</i> —above
<i>ex</i> —out of, from	<i>trans</i> —across
<i>extra</i> —beyond	<i>ultra</i> —beyond, extremely
<i>in</i> —in, on, into, not	<i>ob</i> —against, in front of

#### 2. Explain the meaning of each of the following words.

abstract	transpose	delude
distract	compose	allude
retract	refer	progress
conclude	confer	retrogress
exclude	supercede	ingress
express	recede	object
impress	concede	reject
repress	seductive	ultra-violet
superimpose	reduction	beneficial
	interlude	

#### 3. Think of the word which corresponds in meaning to the phrase in Column II, and contains the prefix listed in Column I.

*Column I**Column II*

<i>dis—</i>	not to be in harmony
<i>in—</i>	not suitable
<i>pre—</i>	to be ripe before time
<i>ab—</i>	to give up sovereign power
<i>ad—</i>	to manage affairs
<i>ante—</i>	date earlier than a specified date
<i>circum—</i>	a detail, fact, incident, item
<i>con—</i>	having a common center
<i>contra—</i>	forbidden to be imported
<i>de—</i>	to outline, to make a picture of
<i>dis—</i>	a hindrance
<i>ex—</i>	to cry out loudly
<i>extra—</i>	outside the walls
<i>im—</i>	not to be captured
<i>inter—</i>	matter printed between lines
<i>intro—</i>	to look within oneself
<i>ob—</i>	hardened against
<i>peri—</i>	outer boundary of a plane surface
<i>post—</i>	a suffix
<i>re—</i>	rise again
<i>retro—</i>	the act of going backward
<i>se—</i>	to withdraw from others
<i>sub—</i>	low, or inferior in rank
<i>super—</i>	above the nature of man
<i>trans—</i>	to manage business

The introductory comments on Latin prefixes hold equally for the following unit of work. The Greek prefixes are fewer in number than the Latin, and are usually used in a fixed and invariant sense. A knowledge of these prefixes is especially helpful if you are interested in mathematics, medicine, science, philosophy, or the cultural professions.

It is a relatively simple task to learn the meaning of these common Greek prefixes; the student is ready, then, to continue enlarging his vocabulary with a minimum of effort. Following through the practice material will be one more step taken in laying the groundwork for word analysis which creates rich possibilities for the mastery of verbal materials.



## GREEK PREFIXES

## 1. Greek prefixes listed with English equivalents

<i>a, an</i> —without, not	<i>dys</i> —ill, bad	<i>meta</i> —between
<i>ambi, amphi</i> —around, both	<i>ec</i> —out of	<i>mono</i> —one
<i>ana</i> —up, through	<i>epi</i> —upon, for	<i>peri</i> —around
<i>anti</i> —against	<i>eu</i> —well	<i>para</i> —beside, contrary to
<i>apo</i> —from	<i>hyper</i> —over	<i>poly</i> —many
<i>cata</i> —down	<i>hypo</i> —under	<i>syn, syl, sym, sy</i> — with, together
<i>dia</i> —through	<i>hemi</i> —half	

## 2. Words containing Greek prefixes

amphibian	epilogue	dyspeptic	euphony
amphitheatre	eulogy	synthesis	epigram
ambivert	apology	analysis	polygon
apathy	catalogue	eccentric	hypertension
antipathy	dialogue	synagogue	hypercritical
sympathy	eclectic	eczema	monochromatic

## 3. Think of the word which corresponds in meaning to Column II and which contains the prefix in Column I.

## Column I

## Column II

<i>a</i> —	without a center
<i>amphi</i> —	having two natures
<i>ana</i> —	an error in the order of time
<i>anti</i> —	not sociable
<i>cata</i> —	an event which overturns the usual order of things
<i>dia</i> —	a vernacular
<i>dys</i> —	afflicted with indigestion
<i>ec</i> —	state of excessive emotion
<i>ec</i> —	sparing in outlay
<i>epi</i> —	a descriptive title
<i>epi</i> —	a summary
<i>eu</i> —	public address praising a person's character
<i>hyper</i> —	poetic exaggeration
<i>hypo</i> —	supposition

*Column I**Column II*

<i>hypo—</i>	a side of a triangle opposite to the right angle
<i>hemi—</i>	half a sphere
<i>meta—</i>	energy yielding process essential to life
<i>mono—</i>	design formed by interweaving of several letters, as initials
<i>mono—</i>	exclusive control
<i>peri—</i>	a space of time
<i>para—</i>	to render useless or ineffective
<i>mono—</i>	without variety
<i>poly—</i>	combination of two or more independent melodies
<i>sym—</i>	that which shows the existence of a cause of which it is the effect
<i>sym—</i>	a harmony of sounds

**THE USE OF THE SUFFIX**

A derivative word may have a syllable or syllables added to the end of the root. When the syllable follows the root, it is called a suffix. The syllable *suf* comes from *sub* meaning "after" and the root, *fix*, is derived from the latin root "to fasten." So a suffix is a group of letters *fastened after* a root to alter its meaning.

Suffixes do not change the meaning of a word so often as they change it from one part of speech to another. Take, for example, the suffix *-ly*; that is the usual sign of an adverb. Adding *-ly* to the adjective *pleasant* forms the adverb *pleasantly*. When the suffix *-ing* is added to the present infinitive, the present participle is formed; for example, play, playing and read, reading. With *-er* and *-est*, the comparative and superlative degrees of adjectives are formed, for example, great, greater, greatest, or noble, nobler, noblest.

Euphonic changes that take place in building words of prefixes and roots will be found occurring in the lists of words illustrating suffixes. Be on the alert to detect the different

spellings of each suffix, and be ready to state why the change in spelling has occurred.

Memorizing the meanings of the most common suffixes, practicing analysis of words that contain them and discovering the literal meanings of those words are the next steps to be taken by those who are interested in developing power with words.

### SUFFIXES

#### 1. Latin Suffixes

##### a. Noun suffixes

<i>an, ant, ent, ate, or, ee</i>	—express agent (one who)
<i>acy, age, ance, ice, ment</i>	—express act, quality, state
<i>ary, ery, ory</i>	—express place where

##### b. Adjective suffixes

<i>able, ible, ile, ble</i>	—express ability
<i>al, an, ic, ine, ory</i>	—express like, relating to
<i>aceous, acious, ate, ous</i>	—express full of

##### c. Verb suffixes

<i>ate, fy, ize</i>	—express to render
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#### 2. Greek Suffixes

##### a. Noun suffixes

<i>ism</i>	—state of being, doctrine
<i>ist</i>	—one who
<i>sis</i>	—denotes action or state
<i>et</i>	—one who
<i>ic, ics</i>	—science of
<i>y</i>	—state of being

##### b. Adjective suffixes

<i>ac</i>	—pertaining to
<i>ical</i>	—made of; one who; pertaining to

##### c. Verb suffixes

<i>ize, ise</i>	—to make, to give
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## 3. Anglo-Saxon Suffixes

## a. Noun Suffixes

<i>ar, ard, er, ster, yer</i>	—express agent (one who)
<i>dom, head, hood, ing</i>	—express action, quality, state
<i>en, ie, kin, ist, ling, ock</i>	—express diminutives

## b. Other Suffixes

*fold, less, some, teen, ty, ward, wise*

## 4. Name the word which corresponds to the meaning in Column II using the suffix listed in Column I.

## Column I

## Column II

—ary	place where books are kept
—ment	state of high emotional feeling
—ical	the very same
—ous	abounding in fearlessness
—ate	one who is sent
—fy	to put to death
—an	one who works at a trade
—ant	one skilled in keeping records
—ee	one to whom property is committed
—ent	one who studies
—ance	conditions of plenty
—ory	place where goods are made
—ible	apparent
—ness	willingness, promptness
—acious	deceptive
—ate	much adorned, decorated
—ize	to cause to suffer greatly
—ly	like a sovereign
—wise	in a similar manner
—y	tempestuous

## WORDS COME IN FAMILIES

The three classes of words are derivative, simple, and compound. The first is a word containing a root plus an affix or affixes; the second is a word made up of a simple root; and the third is composed of two simple words.

The root is the family name, and the affixes make the

identities of the individuals in the family. One of the tasks in this lesson is to write words belonging to a family group.

In working through the exercise, try to explain the connection between the meanings of words and the literal meanings of the component parts. Note the euphonic changes made in giving the different parts of speech.

#### FAMILY WORDS

1. Five nouns are listed below. First give a synonym. Then name the verb and the adjective derived from the original noun. For example, sympathy means *compassion*; its verb form is *sympathize*, and its adjective form is *sympathetic*.

attraction  
scripture  
beauty

composition  
simplicity

2. For the verbs listed below give a synonym, and then think of the noun and adjective derived from the original verb. For example, collect means *gather*, and the noun built from *collect* is *collection*, and the adjective is *collective*.

excede  
produce  
deceive

heal  
inflate

3. Give the meanings, verbs, and nouns of the following adjectives. For example, *fertile* means *fruitful*, its verb form is *fertilize* and its noun is *fertility*.

glorious  
professional  
imaginary

inspired  
exclusive

4. What is the appropriate form of the word in the parentheses?
- The sound of the referee's whistle (signal) the beginning of the game.
  - The Japanese representative was (author) to discuss the possibility of a Russo-Japanese treaty with Mr. Stalin.
  - The program presented (vary) representatives of foreign countries.



- d.* Out of (defer) to his parents' wishes, he agreed to study medicine.
  - e.* The Ku Klux Klan (terror) Negroes and Northern whites after the Civil War.
  - f.* Her (explode) personality was a source of much discontent to her family.
  - g.* On his way to the office, he passed through a tenement (locate).
  - h.* America is at present (mobile) the forces of industry.
  - i.* The laws of the state (compulsion) children under eighteen to attend school.
  - j.* To the (astonish) of his audience, he performed the perilous act.
  - k.* He was under (oblige) to pay the debt.
  - l.* She intends to (special) in psychology.
  - m.* It is a (certain) that we are going to travel down the Grand Canyon this summer.
  - n.* The parents were determined to (equal) the burden.
  - o.* (Real) is more satisfying than romance.
5. How large a family can you develop for each of the following roots?
- imag—      sci—      ced—      tend—      scrib—*
6. Separate the following words into their component parts and explain the meaning of each part.
- intercede    audible    certificate    irrepressible    reception

### SYNONYMS AND ANTONYMS

Synonyms are words which convey the same general idea, although each word has its own particular force. This fact is illustrated by a comparison of the exact shade of meaning expressed by the synonymous verbs listed in the examples below. Synonyms may be compared to geometric figures that overlap but do not coincide. Each possesses something in common, but each has also a meaning peculiar to itself. Rarely, if ever, is there perfect correspondence.

When college students take the trouble to check their own speech over a period of time, they are usually convinced that they greatly overwork a few words. They discover that everything that pleases them is *nice*; everything that displeases them is *awful*. How can you acquire synonyms to eliminate poverty in expression? First of all, you must begin with what you have; you must list your own overworked words. It is a worth-while exercise to list as many synonyms as possible before referring to books. Then resort to a good dictionary or books on synonyms and antonyms to make a second list of those that did not come to mind. Not all of these words are worth acquiring but those that are should be checked and used until you can count them among your resources. With an increased knowledge of synonyms comes a clearer understanding of words. You begin to see fine distinctions, to discriminate between similar words. Speech and writing will take on definiteness and clarity.

Antonyms are words of opposite meaning; they emphasize contrast in idea. The French schools use freely the method of finding exact antonyms for the improvement of vocabulary. The theory is that if one knows the word of precisely opposite meaning, one must have a firm grasp on the original. Frequently words can most precisely be defined by giving the opposite.

The next two exercises are designed to afford an opportunity to estimate accomplishment in synonyms and antonyms. If a dictionary is required constantly, a systematic plan of attack should be formulated in order to have ready for service the words that express thoughts accurately.

#### SYNONYMS AND ANTONYMS

1. A synonym (*syn*, together + *onuma*, name) is one of several words expressing essentially the same idea, but commonly differing from one another in some shade of meaning, in emphasis, or, especially in connotation.

Example: Proclaim, declare, aver, avow, disclose, confess, announce, advertise, publish, communicate, reveal, herald

2. Can you give three synonyms of each word?

surrender	permanent
survey	revoke
record	surprise
convenient	scanty
building	recompense

3. An antonym (gk. *anti*, opposite + *onyma*, name) is a word which in meaning is directly opposed to another word in the same language.

Example: success — failure  
 truth — error  
 import — export

4. Give an antonym of each word:

antonym	futile
insubordinate	taciturn
capable	sedate
lifeless	secure
prohibit	proficient
reprimand	melodious
tortuous	proclivity

5. Give a synonym and an antonym for each of the following words.

unusual	defend
bondage	courteously
lengthy	prominent
enemy	reliable
sensible	prompt

6. Find the antonym in Column II for each word listed in Column I.

*Column I*

arrangement  
 monotonous  
 inflexible

*Column II*

expansion  
 dexterity  
 laity

felicity  
 confidant  
 triumphant  
 extemporaneous  
 power  
 clergy  
 precede  
 tenderness  
 diminution  
 scarcity  
 insolence  
 clumsiness

animosity  
 impotence  
 follow  
 multiplicity  
 humility  
 disorder  
 grief  
 pliable  
 enemy  
 premeditated  
 entertaining  
 unsuccessful

7. Find the synonym in Column II for each word listed in Column I.

*Column I*

credulous  
 compulsion  
 ominous  
 prove  
 cumbrous  
 symmetry  
 pomp  
 supplant  
 statement  
 arrogant  
 dilemma  
 peruse  
 combustible  
 proficiency  
 mendicant

*Column II*

competence  
 assertion  
 unwieldy  
 proportion  
 perplexity  
 insolent  
 substitute  
 read  
 inflammable  
 splendor  
 gullible  
 beggar  
 threatening  
 verify  
 coercion

SAME-OPPOSITE DRILL

1. Name a synonym and an antonym for each word. For example, *hide* is equivalent to *conceal* and is the opposite of *display*.

hide  
 generous  
 ancient  
 peril  
 combatant

obstinate  
 cautiously  
 honest  
 boldness  
 loyal

2. Can you find the same or opposite of the first word in the row?

abhor	invade	absolute	feign	love
incomparable	matchless	incompatible	inconceivable	placid
alacrity	discourtesy	alarm	readiness	latency
apparition	apportion	phantom	bewitch	fractious
amicable	divergent	injurious	amotion	hostile
reluctance	remorseful	reliance	willingness	sibilance
inhospitable	inimitable	manageable	initiation	cheerless
compensate	complicate	repay	furcate	compliant
adoration	adulation	advocation	reverence	duplication
apathy	fertility	enthusiasm	aperture	apex
decisive	declarative	genitive	conclusive	decrepit
adequate	insufficient	adjacent	segregate	ameliorate
casualty	accident	casual	irony	casuistry
grotesque	grouty	bizarre	jargon	grotto
audacious	fearful	august	luminous	auricular
rigor	righteous	tenderness	stupidity	vapor
alienate	granulate	agitate	estrangle	aggravate
geyser	ghetto	ghout	ghyll	spring
jeopardy	jejunum	hazard	mockery	jequirity
deface	defeat	hamper	defer	improve

### USE WORDS IN CONTEXT

Concentrating on isolated words in practice material is valuable exercise, but one must not lose sight of the fact that words are used in combination. Of course, thorough acquaintance with individual words is the foundation for discriminating speech. The usual development is from the simple to the complex; a thorough knowledge of the parts will help in creating precise wholes. After an introductory period of drill, however, the two processes should go on simultaneously, each contributing to the success of the other.

The problem of meaning is vastly important in systematic vocabulary building. In making an intensive examination of a given passage, the primary concern is with the meaning of the words in context. The literal meaning of context is *weave together*. A word has a certain meaning according to the words



which precede and follow it. So it is necessary to examine words for their significance as they occur in sentences, paragraphs, and whole chapters. Too great concentration on individual words will make it impossible to see the forest because of the trees.

The first two vocabulary-building techniques were *read extensively* and *study intensively words as they occur in difficult passages in subjects where you are showing lowest achievement*. These two devices were offered so that students would see and study words in action. The next exercise also calls for using words in context.

#### SUPPLYING THE MISSING WORD

Supply the appropriate word which is needed to complete the meaning of the sentence. Five letters occur after each sentence. One of these is the first letter of the word you need in each case. The number between parentheses indicates the number of letters in the word.

1. (8) is a synonym for compassion. (r, d, s, h, t)
2. A (5) is a playing card bearing the figure of a soldier or servant. (g, b, p, k, t)
3. The (8) is a tree having large, fragrant, pink or white blossoms. (y, m, s, a, v)
4. A permanent rule adopted by a corporation is called a (7). (v, a, m, y, s)
5. A temporary lodger, or boarder is a (9). (t, p, m, r, c)
6. A (7) is a piazza, a porch, or a stoop. (t, v, w, n, b)
7. A small keyed musical instrument which opens and shuts like a bellows is called an (9). (e, a, i, o, u)
8. A synonym for a rival is an (9). (a, e, i, o, u)
9. A (10) is a kind of muskmelon of delicate flavor. (g, h, c, l, n)
10. A place of religious retirement is a (8). (p, c, l, s, d)
11. (8) is a temporary mental disorder often caused by fever. (l, t, d, b, r)
12. A (7) is a group of symbols, expressing the composition, or contents of a chemical compound. (b, f, h, r, m)
13. (7), a pavement of crushed stone, is a word derived from its inventor. (t, r, c, m, b)

14. (9) is the business of making and selling hats. (*h, m, r, e, p*)
15. A (6) is a toy which shoots harmless bullets by air pressure. (*r, p, l, n, t*)
16. A written direction for the preparation and administration of a remedy is a (12). (*p, g, b, t, c*)
17. A (6) is one renowned for his wisdom. (*h, t, s, r, d*)
18. The point on the scale from which reckoning begins is (4). (*u, y, s, z, w*)
19. A clever remark is a (9). (*s, w, z, y, u*)
20. The dark figure projected by the body intercepting the light rays is a (6). (*a, u, p, s, e*)
21. A (5) is a thin, dry cake or biscuit. (*w, p, z, y, f*)
22. An opening in the earth's surface from which molten rock, fire and steam are expelled is a (7). (*r, v, c, t, q*)
23. The wife of an emperor of Russia is a (7). (*s, d, t, r, h*)
24. A (7) is a broad, elevated tract of flat land. (*s, e, a, p, u*)
25. A (10) is a member of a lawmaking body. (*l, i, q, n, c*)

### LEARN THE WORDS OF BASIC IMPORTANCE

Two road-guides might well be suggested for continued individual work. Edward L. Thorndike, with his assistants, counted ten million consecutive words in commonly read English and American works and selected the twenty thousand which occur most frequently.<sup>1</sup> In the list each word has a number following it that indicates in which thousand it is found. The lower the number, the more frequently it occurs. No one can afford to be ignorant of these important words. C. K. Ogden and his colleagues of the Orthological Institute in London spent ten years finding a list of key words in English. The volume is called *Basic English*,<sup>2</sup> contains 850 words, and is meant for international use. Of course, knowing 850 words would be no great accomplishment, but these words will serve

<sup>1</sup> E. L. Thorndike, *The Teacher's Word Book of 20,000 Words* (New York: Bureau of Publications, Teachers College, Columbia University, 1931).

<sup>2</sup> C. K. Ogden, *Basic English Dictionary* (New York: W. W. Norton & Company, Inc., 1942).

as landmarks from which to find the way through the maze of 800,000 existing English words.

Having in your possession the frequency numbers of words furnished by Thorndike, and Ogden's key-words, you can more effectively and more systematically carry your list of techniques toward an ever increasing vocabulary. Mastery over words requires interest and a vast expenditure of energy and time. Continued mastery means continued effort—hard, intelligent, and persistent work.

The last unit of work constitutes a review of all preceding ones. A perfect score is 35; complete the exercise without help and score your paper. Then be sure to use your dictionary to check the unknown.

### REVIEW

Answer the following statements:

1. From what Latin root does the word *occupy* come?
2. Name two words which means the same as *avenge*.
3. From what Latin noun is the word *apparition* derived?
4. What is the meaning of *ribald*?
5. Name three synonyms for *cheat*.
6. What is the derivation of *irrelevant*?
7. Trace the origin of *benevolent*.
8. Find the Latin roots of the word, *generate*.
9. Give the literal meaning of *exterminate* from its root and prefix.
10. Name three words which might be used for the overworked word, *funny*.
11. From what language and root does the word, *suave*, come?
12. Name three words for the much used *happy*.
13. What is the meaning of *to endorse*?
14. What does the prefix *tele* mean?
15. Give the noun form of *involve*.
16. Can you give four synonyms of *strong*?
17. What noun do we get from *con + vello*?
18. What adjective is derived from the Latin *ferox*, meaning wild?
19. Name the Greek prefix for *two*; the Latin; the French.

20. Give three English words built up with a prefix plus the root, *jaceo*.
21. What is the meaning of the prefix *dis* in *discontented*?
22. Give three derivatives of *ago*, to act.
23. Name two derivatives of the Latin *movere* plus a suffix.
24. Name two derivatives of a prefix plus the root, *movere*.
25. The name of the palace of Frederick the Great at Potsdam is called "San Souci." What is the meaning of the name?

### TRUE-FALSE STATEMENTS

Which statements are true?

1. An *innuendo* is a brief interval.
2. *Vibratory* is derived from *vibrate*.
3. *Generous* is an antonym for *bounteous*.
4. *Horizontal* is an antonym for *parallel*.
5. An *adviser* is called a *counselor*.
6. *Reproof* means to *rewrite*.
7. *Hypo* means under; *hyper*, over.
8. *In*, *il*, *im*, *ir*, are prefixes which may be used to mean either *in*, *into*, or *not*.
9. *Ab* as a prefix means *to*.
10. *Geo* is a Greek root which may be written *ge* or *geo*.

### FINAL ASSIGNMENT

Take the alternate form of the same test used at the beginning of this unit. If thoughtful work has been done, there should be a mathematically significant increase in your percentile rating.

## 6 How to Use the Library

The college student discovers early in his course that he must search for information beyond that given in his classes and textbooks; in the library he will find required reading matter and numerous valuable guides to source material for research problems. Much time and energy can be saved if he learns how to use this "true university" as an essential supplement to his program.

A library, an integral unit of college organization, is a collection of books so organized and arranged that individuals are able to satisfy their needs with the least amount of effort. Almost every college library issues a handbook, a guide that shows where and how to find what is needed. If further help is required, the student should consult any member of the library staff, who will be glad to be of service. There are but few secrets; mastery of a few routine procedures will raise one's efficiency score in the gathering of material.

### THE CARD CATALOGUE

A card catalogue is to a library what an index is to a book. It is nothing more than a systematic arrangement of small drawers containing author, title, and subject cards for all the books in the library.

The cards, arranged alphabetically, give the call number and information about the author, title, place and date of publication, publisher, items about the physical make-up of



the book such as size, number of pages, illustrations, and other items of bibliographical interest.

The same book may be found by looking up the author, the title, or the subject. For example the book, *Best Methods of Study*, by Samuel Smith and Arthur W. Littlefield has at least four cards in the catalogue: joint-author cards, a title card, and a subject card. There follows an example of the author card.

	CALL NUMBER	AUTHOR	DATE OF BIRTH	DATE OF PUBLICATION
	371.3 Sm56b	Smith, Samuel, 1904-		
TITLE		Best methods of study; a practical guide for the student [by, Samuel Smith ... and, Arthur W. Littlefield ... with special sections by Louis Shores ... and, A. C. Jordan ...		
PLACE OF PUBLICATION		New York, Barnes & Noble, inc. [1938]		
PUBLISHER		6 p. l., 132 p. illus. (incl. maps) diagrs. 21". (College outline series; A. W. Littlefield, general editor;		
NUMBER OF PAGES		Bibliography p. 129-130.		
BIBLIOGRAPHY		I. Study, Method of. II. Shores, Louis, 1904-	I. Littlefield, Arthur W., 1905- III. Jordan, Archibald Currie	joint author. IV. Title.
SUBJECT		33-34958		
		Library of Congress	LB1049 S85 (42u2)	371.3
	CONTAINS ILLUSTRATIONS, MAPS, AND DIAGRAMS	ADDED ENTRY	HEIGHT IN CENTIMETERS	SERIES

The subject card for this same book will have the heading, *Study, Method of*, typed at the top of the card in red and will be filed in the subject catalogue. The joint-author card will have Littlefield, Arthur W., 1905—typed at the top of the card in black and will be filed in the author and title catalogue.

In order to get a book from the library, one copies the name of the author, the title, and the call number on the index card to a call slip which he presents at the circulation desk. The call number, located in the upper left-hand corner, is comparable to one's name and address; it designates the section and the shelf where a book is to be found in the library. Therefore, great care must be taken in recording this number

accurately if no time is to be wasted by the librarian or student.

The call slip for the author card reproduced previously would look like the example below.

<small>U. S. PAT. NO. 1,904,137-1228897</small>		<b>CALL NUMBER</b>	89010-0
1 SEM. S.S. 2 SEM. S.S.		371.3 Sm 56L	
1 MON. WED. FRI. WEEK C 2 MON. WED. FRI. WEEK C		VOLUME.....	
1 MON. WED. FRI. WEEK B 2 MON. WED. FRI. WEEK B		COPY..... ACC..No.....	
1 MON. WED. FRI. WEEK A 2 MON. WED. FRI. WEEK A		AUTHOR Smith, Samuel	
		BRIEF TITLE Best Methods of Study	
		SIGNATURE John Arm	
		ADDRESS 318 S. Burrows St.	
		Student	
24 25 MON. WED. FRI. WEEK A MON. WED. FRI. WEEK A		PLEASE INDICATE COLLEGE STATUS	

## THE CLASSIFICATION OF BOOKS

Fiction is usually found in one section of the library and is arranged alphabetically by the last name of the author, and under each author, alphabetically by title.

All other books are arranged according to a special system of classification. The Dewey Decimal Classification is the most popularly used. According to this system, the books in the library are grouped under topics. There are ten major divisions:

- 000 General works including bibliography, and general periodicals
- 100 Philosophy, psychology, ethics
- 200 Religion, Bible, mythology
- 300 Sociology, economics, education, political science
- 400 Philology, dictionaries, grammars
- 500 Natural science, mathematics, chemistry, physics, biology
- 600 Applied science, useful arts, medicine, agriculture, manufacturing
- 700 Fine arts, music, recreation
- 800 Literature
- 900 History, biography, travel

Each of these major divisions is divided into many subdivisions. For example, Bisch's *Clinical Psychology* is numbered 136; in the 100's because it is psychology; in the 130's because it is *mind and body*; in 136 because it is *genetic psychology*.

Any student may examine upon request to the librarian a book which gives complete details about the Dewey Classification. Some students find it convenient to memorize the divisions which they will use a great deal. Many large libraries use the Library of Congress classification.

#### THE CARD CATALOGUE AND CLASSIFICATION OF BOOKS

1. Get acquainted with your college library by making a tour of inspection. Examine bulletin boards, exhibits, and book shelves; ask questions of the librarians; request a library handbook and study carefully the rules and regulations concerning the circulation of the books.
2. Can you answer the following questions?
  - a. What is the card catalogue?
  - b. What are the groups of letters on the outside of the first drawer in the author and title catalogue?
  - c. What do these letters indicate?
  - d. What does *O. Henry* in red ink on the top line of an index card indicate?
  - e. What are the numbers in the upper left-hand corner called?
  - f. Locate the most recently published book on seaplanes.

- g. Can you explain the items on the index card that you found on seaplanes?
- h. Name the three general ways of filing cards in the card catalogue.
- i. Write an author card for the card catalogue by using the information from any one of your textbooks.
- j. Should the call number on the subject card of a given book be the same as that on the title card?
- k. Does the number of cards in the card catalogue correspond with the number of books in the library?
- l. The class number of *Evangeline* is 811. Why is it in the 800's? Why is it in the 810's? Why is it 811?

### THE READERS' GUIDE

Just as the card catalogue serves as an index to the *books* of the library, so the *Readers' Guide* is an index to material in more than one hundred magazines. The *Readers' Guide to Periodical Literature* is published monthly; at the end of each year there is an annual volume. This index is a most important tool for finding articles in magazines in the easiest and quickest way. The thinking student will learn very soon not to wade through one magazine after the other in order to find an article; he will use an index.

Only a small portion of the periodical collection is on open shelves. The greater part is in the stacks and may be secured upon request. The student copies on a call slip all the required information which he finds in the index—the author and the title of the article, the name of the periodical in which it is located, the volume number, the date and page number.

An explanation of a typical reference from the *Readers' Guide* follows:

World War, 1939. Submarine operations  
Ships snatched from the sea. H. Corey. il  
Nation's Bus. 31:35-6† Mr '43

*World War, 1939. Submarine operations* is a subject heading.  
*Ships snatched from the sea* is the title of the article.

*H. Corey* is the author of the article.

*il* is abbreviation for illustration.

*Nation's Bus* is abbreviation for the title of the magazine, *Nation's Business*.

*31* is the volume number of the magazine.

*35-6* are the pages on which the article appears.

† indicates the article is continued on other pages in the magazine.

*Mr* is the abbreviation for the month of March. If the magazine were a weekly, the day of the month would also be indicated, as *Mr 10*.

'*43* indicates the year of issue of the magazine.

A list of abbreviations used and an explanation for the use of the index is found in the front of each issue. Entries are alphabetized under author and subject, and, when necessary, under the title. The call slip for the reference from the *Readers' Guide* would look like the example below:

### USE THIS CARD FOR MAGAZINES

Call No. \_\_\_\_\_

Magazine  
Title

*Nation's Business*

Volume

*31*

Date of  
Magazine

*March 1943*

Article wanted is  
on following pages

*35-6 †*

Signature

*John Arm*

Address

*318 S. Barrow St.*



Knowing how to use one periodical guide is knowing how to use most of them since they follow the same form. The most generally useful indexes which analyze the contents of magazines are as follows:

*Poole's Index to Periodical Literature*, 1802-1906. The earliest magazine index.

*Readers' Guide to Periodical Literature*, 1900-date. Indexes current general periodicals.

*Engineering Index*, 1884-date. Internationally accepted guide to engineering literature of the world.

*Monthly Catalog*. U. S. Public Documents, 1895-date. Lists U. S. Government publications.

*Book Review Digest*, 1905-date. Excerpts from reviews of current books published in the U. S.

*Annual Magazine Subject Index*, 1907-date. A subject index to a selected list of American and English periodicals and society publications.

*Dramatic Index*, 1909-date. An index to all dramatic articles.

*New York Times Index*, 1912-date. A master-key to the news.

*Industrial Arts Index*, 1914-date. Indexes technical periodicals in the fields of business, finance, applied science, and technology.

*Public Affairs Information Service* (P.A.I.S.), 1915-date. An up-to-date index to new books, current periodicals, government documents, and pamphlets. Publications from all English-speaking countries are included.

*Agricultural Index*, 1916-date. Indexes periodicals in the agricultural and related fields. In addition, indexes pamphlets, bulletins, documents, and reports issued by agricultural agencies.

*Education Index*, 1929/30-date. Aim of the index is to cover educational literature generally, including books, pamphlets, monographs, and reports, and not periodicals alone.

*Art Index*, 1929/30-date. Covers the entire field of fine and applied arts, including archaeology, architecture, ceramics, decoration and ornament, engraving, graphic arts, landscape architecture, painting, sculpture.

#### PERIODICAL GUIDES

1. What date marked the beginning of the *Readers' Guide to Periodical Literature*?

2. Where do you find the list of abbreviations used by the *Readers' Guide*?
3. What do these abbreviations mean?

Sat. R. Lit.	pseud.
Sci. Mo.	ns.
Sch. & Soc.	v.
Sch. R.	i.
Nation's Bus.	bibliog.

4. Who was the editor of the *Atlantic Monthly* for November, 1944?
5. This is a reference taken from the *Readers' Guide*.

*Psychology, Physiological*

*Grief must be faced. I. M. Greer. Christian Cent. 62:  
269-71 F 28 '45*

Explain the following items from the above reference:

Subject heading	Meaning of 269-71
Title	Meaning of F
Author	Meaning of 28
Name of magazine	Meaning of '45
Meaning of 62	

### REFERENCE BOOKS

Books frequently consulted for facts or information are usually designated *Reference*. Therefore, these books are kept in the library and do not circulate. The most widely used of all reference books is the dictionary, which is more valuable than most students realize. It is a veritable storehouse of information. Among the contents are the following: interesting, valuable information about the history of the English language; detailed directions about using the dictionary; the spelling, pronunciation, history, meanings, synonyms and antonyms of words; historical events; list of abbreviations; a geographical dictionary; and a biographical dictionary.

Large and authoritative dictionaries are

*Webster's New International Dictionary*  
*The New Century Dictionary*

*The New Standard Dictionary*  
*Oxford Dictionary*  
(Murray's New English Dictionary)

Among the smaller lexicons are

*Webster's Collegiate Dictionary*, Fifth Edition  
*Practical Standard Dictionary*  
*Desk Standard Dictionary*

Among the most useful books in the Reference Room will be found dictionaries of special types; such as

Roget, *Thesaurus of English Words and Phrases*  
*Webster's Dictionary of Synonyms*

## Encyclopedias

An encyclopedia, a number of volumes, presents facts about persons, places, things, and events in an alphabetical arrangement. It is most extensive in that it gives information on every subject of any importance. For that reason, the material will be most compact and purely introductory; if the student wishes to investigate the subject thoroughly, he will examine the bibliography at the end of a unit and continue the search for material. Using the encyclopedia as a first step in research often proves a great time-saver.

The writing of an encyclopedia is supervised by an editor-in-chief. The actual writing is done by many assistant editors, who are qualified authorities, or by specialists, who contribute articles in their fields. Editors of encyclopedias bring the material up-to-date by supplementary volumes, annual yearbooks, new editions, or the loose-leaf method. Remember, however, that the date of an encyclopedia is very important.

A student should examine the copyright date, found on the back of the title page, to determine the recency of the edition. He should familiarize himself with the most important encyclopedias and discover their methods of organization. If he

masters the rules for their use, he has at hand a real source of help in problems of research.

Encyclopedias of merit usually found in a college library are

*Columbia Encyclopedia* (one volume)  
*Dictionary of American History*  
*Encyclopedia Britannica*  
*Encyclopedia Americana*  
*Encyclopedia of Social Sciences*

### Yearbooks

The *World Almanac and Book of Facts* is kept up to date by annual revisions. One should note the date of issue which is always printed in heavy type on the cover. This reference book is valuable for current statistical information on educational, political, social, economic, and religious questions.

Some other yearbook references are *Statesmen's Yearbook*, a manual of information about the governments of the world; *American Yearbook*, survey of developments in the United States; and *Statistical Abstract of the United States*, figures on population, crops, commerce, and so forth.

### Biography

Biographical dictionaries are particularly useful. Among the main types are:

*Who's Who in America?*  
*Who's Who?*  
*Lippincott's Biographical Dictionary*  
*Webster's Biographical Dictionary*  
*Universal Pronouncing Dictionary of Biography and Mythology*  
*Directory of American Scholars*  
*American Men of Science*  
*Century Cyclopedia of Names*  
*Who's Who in the Theatre?*  
*Who's Who in Education?*

*Dictionary of American Biography*  
*Current Biography*  
*Dictionary of National Biography*

## Geography

Atlases are essentials in the library. Often a student is in need of maps which show population density, products, ocean depths, and so forth. Among the important atlases in the average college library are:

*Goode's Atlas*  
*Century Atlas of the World*  
*Rand McNally's Commercial Atlas of America*  
*Encyclopedia Britannica World Atlas*  
*World Atlas*

## QUESTIONS AND EXERCISES

### REFERENCE BOOKS

#### *The Dictionary*

1. Open *Webster's Collegiate Dictionary*, Fifth Edition, to page 50, and answer the following questions:
  - a. How is the alternative spelling of a word indicated?
  - b. Can you find an example of a cross reference?
  - c. What are the inflectional forms of the first verb on the page?
  - d. When is the pronunciation omitted?
  - e. What markings are used to differentiate between primary and secondary accents?
  - f. What does *Obs.* mean?
  - g. Find one instance of alternative pronunciation.
  - h. What does the centered period mean?
  - i. What is found between brackets?
  - j. If *Larw* were written before a certain definition, what would it mean to you?
2. What is the order of the items placed under each word entry?
3. What do these abbreviations mean?

adj.  
colloq.

ff.  
Med.

n.  
Obs.



4. Divide into syllables and accent the following words:

fiscal	hurricane
mirage	replicate
nomad	spurious
ostracism	wherry
quinine	zenith

5. Use a dictionary and locate the derivation and meaning of the words *encyclopedia* and *cyclopedia*.

### *Other Reference Books*

1. What is the area and population of Arizona?
2. What reference did you use to answer the above question?
3. What are the seven wonders of the world?
4. What is the area of Spain?
5. Who won the Nobel Prize for Literature in 1943? What reference did you use?

### THE PENNSYLVANIA STATE COLLEGE LIBRARY <sup>1</sup>

#### FRESHMAN LIBRARY PROBLEM—SUMMER 1945

Your name \_\_\_\_\_

Your English Composition Instructor's name \_\_\_\_\_

English Composition section number \_\_\_\_\_

Grade \_\_\_\_\_ (To be left blank)

Directions:

1. Read the LIBRARY HANDBOOK and THIS PROBLEM carefully before trying to answer these questions. Save time later by getting acquainted with the library now.
2. Use ink.
3. Handle carefully all books and magazines. Some are out of print and cannot be replaced. Return all material to the proper shelf by call number.
4. Hand in the completed problem to your instructor in English Composition at the time requested by him. Begin your work early for there are not enough copies of the material you will need for the whole class to use at the same time. If exempt, follow instructions in your notice of exemption.

<sup>1</sup> Reproduced by permission of the library staff of The Pennsylvania State College, State College, Pa.

5. Answers to all parts of each question are to be found in the same section of the library or in the Library Handbook.
6. If you need help in using the library, not only with this problem, but at any time while in college, ask any member of the library staff.

SUBJECT:                      Use your subject only when indicated.  
                                    Do Not Write a Theme.

### I. Card catalog

- A.
  1. What is a card catalog?
  2. How are the cards in the card catalog arranged?
  3. What information is found on most cards?
- B.
  1. Who wrote the book *Chemical Computations and Errors*, and what is the date of publication?
  2. In which libraries will the above book be found? Give the complete call numbers.
  3. What is the most recent book we have by Richard Max Brickner, and when was it published?
- C. Using the subject catalog, give in this order: the call number, author and title of two books we have relating to your subject. (See SUBJECT above.) Subject headings are in red. Author and title in black.

### II. Indexes

- A. Complete information about both bound and unbound periodicals may be found at the \_\_\_\_\_ desk.
- B. Using only the unbound indexes found on the table in front of the Periodical Desk on the second floor, find three references on your subject, one of which must be a magazine reference. Copy each reference as it appears in the index.
  - 1.
  - 2.
  - 3.
- C. Explain each item of one magazine reference. (See explanation at front of each index or in the Library Handbook, page 14.)

### III. Reference

- A. Dictionaries, encyclopedias, atlases and similar material may be found in the \_\_\_\_\_ room.

B. In the reference room find three sources containing material on your subject. (See SUBJECT.) Only one of these may be a general encyclopedia. Do not use the cumulative book index, nor the general dictionaries. For subject matter in part of a book use the Table of Contents and Index of that book. List in this order: Call No., author (if necessary), title, volume (if necessary), pages. This question is intended to acquaint you with the books in this room.

1.

2.

3.

#### IV. General information.

A. How do you find whether we have a certain book in the library?

B. Where do you go to charge out a book from the stacks?

C. Where do you go to read the newspapers?

D. Where do you go to get a reserve book (2 places)?

E. Where do you go to use a reference book?

F. Where do you go to get a bound magazine?

G. Where do you go to use the public telephone?

H. Where are books with call numbers beginning with M located?

I. On what page of the Library Handbook will you find an outline of the Dewey Decimal Classification system? (The 10 main classes.)

J. Where is the Circulation desk?

K. Where is the Card catalog?

L. Where is the Reference room?

M. Where is the Periodical room?

N. Where do you find a list of the hours the Central Library and branches are open?

321.8 Russell, William Fletcher, 1890-  
 R91m The meaning of democracy, by William F. Russell  
 ...and Thomas H. Briggs...N. Y. The Macmillan  
 Company, 1941.

xiii, 413 p. 21cm. (Half-title: American Youth se-  
 ries, ed. by T. H. Briggs.)

1. Democracy. I. Briggs, Thomas Henry, 1877-  
 Joint author II. Title

41-8719

Library of Congress

JC423.R3

321.8

Fill out the  
 information on the  
 reproduced  
 call slip from the  
 sample card above.

#### CALL NUMBER

.....

.....

VOLUME .....

COPY ..... Acc. No.....

Author

.....

Brief title

.....

Signature

.....

Address

.....

.....

Please indicate college status

1. ....

2. ....

3. ....

THE PENNSYLVANIA STATE COLLEGE  
 LIBRARY

## MAGAZINE REFERENCE

## PARACHUTE

Wing talk; involuntary parachute jump made by Major Ritchie.  
P. McKee, il Collier's 113:18 + My 27 '44

Fill out the  
information  
from the above  
magazine reference  
on the  
reproduced  
call slip.

## USE THIS CARD FOR MAGAZINES

Call No. \_\_\_\_\_

\_\_\_\_\_

Magazine  
title \_\_\_\_\_

\_\_\_\_\_

Volume \_\_\_\_\_

Date of  
Magazine \_\_\_\_\_

Article wanted is  
on following pages \_\_\_\_\_

Signature \_\_\_\_\_

Address \_\_\_\_\_



PART 2  
Reading



## 7 How to Learn to Read

Learning to read is an accomplishment that most college students believe they have acquired. However, not only the results of reading tests but also the subjective reports of students on their slow rate of reading and their lack of understanding of material read give significant evidence of a need for training in the basic higher-level reading skills required in college study. The fortunate fact about reading is that everyone's efficiency can be improved. Unless you have made a recent check, you can't be quite certain at what rate of words per minute, or at what level of comprehension, you now read.

It is obvious that with equal comprehension, the student who reads 400 words per minute can cover more ground in less time than can the student who reads at only 200 words per minute. There is a definite relationship between scholastic aptitude and reading efficiency. Which is cause and which is effect need not concern us now. It is important to note, however, that the relationship is close. This fact points to the importance of reading efficiency to the college student and to the necessity for practice to improve.

All college students are still learning to read in college, and some guidance is helpful even for those who rank in the very superior group.

There are three difficulties in assisting college students to develop proper techniques of reading. First, they represent all degrees of reading ability; secondly, the causes for their reading disabilities are multitudinous, and lastly, they lack the

proper motivation to develop an increased reading efficiency.

For example, one individual may comprehend 50 per cent of the material; another 10 per cent. Neither student is reading skilfully. Obviously more study and practice are required to develop satisfactory comprehension in the latter. It is equally true that the practice techniques in the one case may be entirely different from those used in the other because of different causes for the lack of comprehension.

Or, one student may be a very slow reader because he articulates while reading; a second reader may be equally slow because he has a limited vocabulary. The improvement devices that would be helpful to one would be fruitless for the other.

If a student is properly motivated, he is interested in determining through experience or tests his reading weaknesses and creating self-improvement through the practice of suggestions applicable to him. There should be a close connection between the diagnosis of difficulties and the remedial work.

Smith College proved that remedial work in terms of specific needs was of real value to members of an experimental group. During 1936-1937, forty-three students who scored below average on the verbal part of a scholastic aptitude test were assigned to an experimental group where remedial work in terms of individual needs was practiced. Forty-three students with similar verbal weaknesses were in a control group where no attention was given to improvement. At the end of the training period, one member of the experimental group was dropped because of poor scholarship and there were five below-passing grades; ten members of the control group were on the danger list and twenty grades were below passing.

#### **SYMPTOMS OF READING DIFFICULTIES**

Symptoms of reading difficulties are merely indications of causes of reading difficulties. The presence of a symptom

dictates that we search for the cause which is usually an inadequate vocabulary or a lack of experience or concept development. It profits us nothing to eliminate a symptom; that usually results in the appearance of another symptom.

### **Articulation**

The efficient reader conserves time and energy for the task at hand by having his vocal organs completely inactive. College students run the gamut of articulation: at one extreme, they actually read aloud and, at the other, there is the absence of the slightest tension. We read orally much more slowly than we read silently. Is it not obvious that the greater the inner articulation of words, the slower the rate of speed? Anyone can check on the presence of this habit by placing the fingers on the lips or on the throat to discover whether there is any vibration. If there is the slightest quiver, the words are being pronounced. The more completely inner speech is eliminated, the faster is the reading process.

### **Mannerisms**

Shrugging a shoulder, scowling, swinging a foot, or biting a nail are mannerisms that require energy. Getting meaning from the printed page is far from a single, simple process and the energy wasted in useless tensions could be used to better advantage.

### **Faulty Eye Movements**

The eyes of good readers travel rhythmically across the line of print making few fixations, or pauses, and with one continuous sweep go from the end of one line to the beginning of the next. It is during the fixations that the eyes read words. Poor readers regress, or allow their eyes to travel backward, and they make many fixations per line. When many pauses



occur, it is proof that the reader is grasping isolated words, and not groups of words. Meaning and interest are lost just as they are lost in a slow motion picture.

Faulty eye movements can be erased and well-established rhythm take their place, but it is wise to determine whether the condition is not merely an indication of causes such as poor vocabulary, or lack of experience or concept development. Far better to remove the causes first. Frequently, rhythmic eye movements will follow naturally when the other deficiencies have been eliminated.

### READING SKILLS

#### Adequate Vocabulary

Word paucity results not only in the reader's failure to produce ideas, but also in his development of bad habits: he reduces his rate of reading and loses interest in the reading process. If 90 per cent of college study is of a reading type, it is a necessary conclusion that words are the tools of the college student.

"How many tools do I have?" is a question for which each student should seek an answer. Most colleges administer entrance examinations or placement tests, and in every battery there is found at least one measure of vocabulary. These scores are usually available to the student. If such tests have not been given, a student may get some indication of the size of his vocabulary by taking a standardized test either in the college reading clinic or in the English department. Or one can estimate his own word paucity or wealth by following the directions given by L. A. Headley.<sup>1</sup>

Briefly, Headley advises one to get a copy of Webster's New International Dictionary, 1909 or any later edition. Have a paper

<sup>1</sup> From L. A. Headley, *How to Study in College*, pp. 267-268. By permission of Henry Holt and Company, publishers.

numbered from one to one hundred. Open the dictionary to any one of the first one hundred pages. Select at random a word in boldface type. Without looking at any of the meanings of the word, try to define it. Then compare your definition with the dictionary's. If you are correct, write plus (+) after # 1 on your paper; if wrong, place a minus sign (—). Now go twenty-three pages beyond this page and select the word which falls in a position corresponding to the first word used. Repeat the process until you have analyzed one hundred words. Add the plus signs on your paper; multiply the sum by 104,000, the approximate number of words in the dictionary; then divide your answer by one hundred. The quotient is an approximation of your recognition vocabulary.

Compare your quotient with that of the average student. According to Headley the average college student has a recognition vocabulary of about 62,192 words. Freshmen average 58,240 words; sophomores, 60,840; juniors, 63,440; and seniors, 65,520.

### Varying Rates of Reading

Superior students are not victims of a fixed rate of reading. They naturally change rates according to the nature of the material and their particular needs, just as the driver of a car adjusts speed to his purposes.

In general college students are not wide readers; they confine themselves to required reading. The abstract material of a textbook calls for a slow, careful rate. Since such material constitutes the bulk of reading, some students develop the habit of perusing everything at a slow rate. A certain amount of determination and practice is demanded if a student is to be able to shift naturally from one gear to another. Reading a novel, a detective story, or a popular magazine gives the student a chance to read at a faster-than-usual speed and counteracts the slow rate that is wisely used in the abstract material of textbooks.

John Cotton Dana, a nationally-known librarian, subscribed

to the principle: We learn to do by doing. He believed we learned to read by reading and gave us these twelve rules:

1. Read
2. Read
3. Read some more
4. Read anything
5. Read about everything
6. Read enjoyable things
7. Read things you yourself enjoy
8. Read, and talk about it
9. Read very carefully some things
10. Read on the run, most things
11. Don't think about reading, but
12. Just read.

Students have been able to increase their speed by reading an abundance of easy, interesting material. For instance, if the person enjoys mystery stories, he locates several having simple plots and vocabulary and during the process of reading, he forces himself to read faster. Keeping a record of the speed of reading is an incentive to bigger and better improvement.

Among reading materials especially designed to increase speed of reading is a pamphlet, *Study Type of Reading Exercises*,<sup>1</sup> by Ruth Strang which gives the reader an opportunity to learn about reading as well as to practice reading. There are twenty sections each containing 1,000 words. The task involves reading a passage, recording exact time required in minutes and seconds, answering specific questions without referring to the reading material, and checking answers according to a scoring key.

If one half hour twice a week is devoted to the reading of these passages, and a careful record of rate and comprehension is kept, the individual will not only be a faster and better

<sup>1</sup> Bureau of Publications, Teachers College, Columbia University (1935).

reader but also will have the satisfaction of knowing that he has improved.

*Purposeful Reading in College*,<sup>1</sup> by J. M. McCallister is another manual designed to help students to read more effectively. Every college student improves his rate of reading somewhat without any particular effort; but, with the proper motivation and guidance, his reading becomes not only more rapid but also more suited to his purpose. McCallister's manual provides experiences that will "aid college students to improve reading ability by making their habits and practices more purposeful."

The *Reader's Digest* <sup>2</sup> presents in the college edition, published from September to June, sixteen pages of material, much of which deals with development of vocabulary, reading rate and comprehension. Any college student would profit by careful reading of these study-type inserts.

The range of words per minute read by college students for various types of material are listed as follows:

<i>Type of Material</i>	<i>Range of Words per Minute</i>
Easy newspaper or novel.....	240-540
Editorials and political articles.....	180-480
Plays and dialogues .....	180-420
Textbooks .....	180-360
Poetry .....	150-300

*Four Rates of Reading.* The most rapid rate of reading is *skimming*. In tackling newspaper, magazines or books, the first step is a rapid examination of the whole for the purpose of rejecting entirely, or accepting as worthy of being "tasted or swallowed, or chewed and thoroughly digested." Besides determining whether the material is of further interest and value, this cursory sketching will orient the reader, enabling

<sup>1</sup> D. Appleton-Century Company, Inc. (1942).

<sup>2</sup> *Reader's Digest*, Education Department, New York.

him at a later reading to gain insights with more rapidity and ease. This rapid rate is used if a student wishes to select assignments when there is a choice—to get a general idea about the amount, nature and the organization of material to be mastered, or to locate specific information. The art of skimming is described later as the first step in the process of reading a textbook assignment.

The second speed might well be classified *rapid reading*. People use it when dealing with familiar material or when interested in main ideas, not details. To read an historical novel for background does not demand attention to every word, as does intensive reading. It makes no difference to the student or to the instructor that the clay on the river bank was bright red rather than dark brown. What is wanted is the idea that river travel was the only way of travel and that travel was slow, especially up-stream. Students could employ this rate when reading supplementary books or periodicals to enrich their knowledge on a section of a text that has already been studied and mastered.

Low gear is demanded in the *careful reading* required to interpret the meanings in college textbooks. This kind of word-for-word, very careful, slow reading is used in the study of physics and in the reading of insurance contracts. Attention must be given to every word. It makes a real difference whether the partner gets \$100 per week *and* 10 per cent of the gross sales, or \$100 per week *or* 10 per cent of the gross sales.

This intensive type of reading puts the emphasis on comprehension rather than speed. Usually, the amount to be covered is not great in terms of number of pages. The goal is clear, detailed understanding; not general background. The student makes no effort to hurry. Instead, he stops to translate, to make diagrams, to rephrase a law or principle in his own words, to work problems, or to underline carefully and make



notes. In fact, the student who doesn't stop to do these things is likely to assume he has comprehended when in fact he has only foggy notions of what the lesson is all about.

A fourth type is called *study-type reading*. This kind of reading calls for elimination of the parts of reading which were perfectly clear and concentration on the sections which were hazy and vague at the end of careful reading. During the process, the efficient student checks on the meanings of unknown words, makes notes, diagrams and the like to guarantee complete understanding and longer retention. This step frequently calls for laborious study at a very slow rate.

The skilful student varies his reading rate in terms of the purpose in mind. To dash through a sonnet at breakneck speed is a cultural crime. To idle through a long novel, attending to each word or phrase, will put the student so far behind in his literature course that he will never catch up. The scholar reading the novel for the purposes of writing a critical evaluation of style will find that the slow-type reading fits his purpose. The student reading for background or general acquaintance in a literature course will be better served by a rapid rate of reading.

## Comprehension

Any reader must have the necessary native intelligence to generate ideas from printed symbols. Generally college students have intelligence quotients ranging from 110 to 150; the average quotient is 125.

To read efficiently in college a student needs, besides an above-average intelligence, skills beyond mere recognition of words. The symbols on the page must have meaning for the reader, and the relationship of the words must represent ideas. If ideas are not forthcoming, the *vocabulary* of the individual may be weak, or his *experiential background* too meager.

Often, a student fails to associate successive ideas when he reads at too slow a rate. He is a word-by-word reader, losing interest in the reading process because he never develops a line of thought.

The reader with high comprehension score is the one who observes details and who is reacting to the ideas on the printed page in the light of his own experience. He does not make the naïve assumption that an idea is right merely because it occurs in print; he is ever weighing, measuring, evaluating, and applying. For him, reading is an *active process* requiring deep concentration.

### PRACTICAL SUGGESTIONS

If you feel you are getting behind in your work because of too slow a reading rate, two very practical things can be done. The first is to go to the university medical center or infirmary to have your eyes checked. College study makes heavy demands on the eyes. It is foolish to give yourself the unnecessary handicap of faulty vision or improper light. The other thing you can do is to consult the psychological clinic, the head of the reading clinic, or the instructor of the how-to-study course. If you are in doubt as to the proper person or department to consult, ask your dean or the chairman of the Education Department. The college wants you to succeed. The facilities are there to serve you. Don't let false modesty or foolish pride or sheer inertia stand in your way if you have any notion you need help in improving your reading efficiency.

### QUESTIONS AND EXERCISES

1. Before reading an assignment, devise questions that you think may be answered in the material.
2. Pause periodically to summarize what you have read.
3. After reading an assignment, develop questions that you believe your instructor might use on the next quiz.

## 8 How to Use Books

"Of making many books there is no end," wailed the Old Testament prophet. What that ancient intellectual did not include in his lament was the fact that so many books are written precisely because so many men are seeking new truth, new knowledge, new services. It was Carlyle who issued the dictum that the true University is a Collection of Books. Books will count large in the life of students until a wire recorder or some similar product of electronic research makes the printing of books as obsolete as the wandering minstrel.

The successful student is a reading student. Twentieth-century America is a reading America. When, during the fourth year (1945) of World War II, the truckers who distributed the New York City daily papers to newsstands, trains, and buses struck for a better deal in wages and vacations, New Yorkers and commuters to New York were in a dither of excitement because there was nothing to read on the 8:42 into the city or the 5:19 to the suburbs.

Everywhere the college student turns, he is directed to read, read, read. Novels, plays, poetry, journals, yearbooks, anthologies, directories, mimeographed sheets, and outlines descend upon the student until he is tempted to experiment to find out if a book under the pillow at night really does soak through.

Reading, even for the science major, is the chief study occupation. About 85 to 90 per cent of all studying done in

high school and college is concerned with some form of reading. The major in literature reads till it hurts, but at least he reads some fiction. Ever since the first grade you have been practicing reading, and in college there is no escape. The invention of movable type and the discovery of the chemical reduction of plentiful wood pulp to paper opened for the student an era of great opportunity, for only through cheap printing can the many have the chance to read, and the opportunity to read is in a very real sense the chance for a college education. You can read without disturbing your room-mate or the neighbors, and you can find in what you read the secrets of plastic chemistry, or the beautiful thoughts of the poet whose lover saw "Helen's beauty in a brow of Egypt."

Because reading makes up so much of the study time of the college student, and because the pressure is to read more and more, great care must be taken to make certain that the eyes function at maximum efficiency, and that the amount and direction of light is right. It is trite but true to say that you have only one pair of eyes. Guard them well, for through your eyes you get a college education.

### GET ACQUAINTED WITH BOOKS

Most of the accumulated wisdom of man's stay on the planet earth is to be found in books. Our forefathers deprecated the value of "book learning," but now that the pressure of mere survival in the wilderness is removed, America has become the largest producer and reader of books in the world. A book represents the combined effort of many contributors—authors, designers, editors, printers, illustrators. Books follow a rough pattern in their form and included elements, although certain sections as the index or dedication may be omitted. There are many kinds of books: textbooks, fiction, non-fiction, laboratory books, manuals, outline books, workbooks. The

college student will meet them all. To know books and to use books efficiently is important for the student, for his main tool of study is the book.

### The Parts of a Book

The *jacket* covering the book protects it in packing and shipping and while on the shelves of the bookstore. The jacket is frequently made very colorful and attractive as a selling aid. To this end, the jacket may carry a description or evaluation of the book, the number of pages it contains, its size as, for example, "large octavo," the selling price of the book, and sometimes a bit about other books by the same author, or in the same series, or by the same publisher.

The *title page* carries the name of the author or authors, sometimes their place of work, the name of the publisher, and the place of publication. On the reverse side of the title page is the copyright date and the name of the person or publishing house holding the copyright. Also on this side of the title page, sometimes will be a notation of the number of printings and number of editions or revisions, and a line stating in what country the book was printed. Care should be taken not to confuse the date of printing and the real date when the book was first published: the copyright date. Sometimes there is a page preceding the title page which carries a notation of the series of which this particular volume is a part and the general editors of the series. If this information is omitted, it may be assumed that the book is not part of a series, although it may be related to other books by the same author.

The title page may also carry a print of the publisher's mark or colophon. Publishing companies are very proud of their books and take great care in the design of their colophon. In general, these marks contain a figure of some significance to members of the firm, the motto, or slogan of the company,



and perhaps the date when the firm was established, or the date when merged with another firm.

The *dedication*, if there is one, commonly follows the copyright page. The dedication is the author's compliment to a friend, his wife, children, former professor, or some other person, or organization he has chosen to honor. Sometimes only the initials of the person so honored are given. Other authors write very flowery and full dedications. Much is sometimes revealed by the dedication of a book, for whom the author chooses to honor tells much about the kind of a person he himself is.

The *preface* is a personal letter from the author to the reader. In the preface he tells intimate details of how he came to write the book, what purpose he hopes it will serve, who gave him help in the writing. Because the reader has been formally introduced to the writer on the title page, authors end the preface simply by signing their initials and the date and place of writing.

Textbooks and other non-fiction books frequently have an *introduction*, sometimes a long one. The introduction may be Chapter I of the book. In the introduction the author introduces the reader to the subject matter of the book in a much more complete and formal way than in the personalized preface. Introductions are frequently historical. They may also give necessary definitions and limit the scope of the treatment of the subject. A book in a field which is quite well defined, as, for example, college biology, may omit the introduction entirely. If the authors choose to write an introduction, the student should give it particular care, for the subject-matter of the book may be written from a particular point of view, which must be understood if the book is to carry the right meaning to the student.

The *table of contents* gives the main headings the authors

had in the outline from which the book was written, and the number of the page on which each part or chapter or section begins. Some outlines also carry the major sub-heads under each main heading. These complete tables of contents give the outline of the book in considerable detail. Note that the preface, editor's introduction, the index, and sometimes the author's introduction are numbered in Roman numerals to indicate that they are not part of the subject outline, and therefore not to be included in the total number of pages devoted to the subject. By this scheme, authors and publishers play fair in telling you how many pages on the subject you are getting for your money. This fact is carried on the cards for the book in the library card catalogue.

The table of contents is valuable not only because it enables the reader to find things in the book, but also because it gives a quick over-all picture of the subject-matter treated. If the student will put a small *x* in pencil before the parts of the book he has studied, the table of contents can serve as a record of work done. In the same way, the order in which the instructor chooses to cover the field may be indicated by renumbering the points in the table of contents.

Except for the body of the book, the *index* is probably the most difficult to make and the most valuable to the student. There are four kinds of indexes: the index to authors' or proper names, the subject index, the title index, and the mixed index. Because all indexes are alphabetical listings of the topics treated or the proper names mentioned in the book, the material on any topic can be quickly located. In doing research on a particular topic the index is invaluable. If, for example, you are investigating historical events associated with Granville, Ohio, you can, by consulting the index of books on history, and more particularly books on the Middle West or on Ohio, quickly discover whether any mention is made of Granville.

The index is difficult to make, so much so that authors sometimes hire specialists to make them for them. The fact that all good texts and books of non-fiction include indexes indicates their great value to the student. A few simple clues will make it possible to get the most out of the indexes in the books you use.

1. Select the most significant words in the topic you are interested in to look up in the index.
2. Look up related words also; for example, *velocipede* as well as *bicycle*.
3. Understand the common index symbols.
4. Use the index to guide review.
5. Note that the approximate number of pages devoted to a topic are indicated in the index.
6. The index tells what topics the author considered most important, or most in need of extended discussion.

The *glossary* is included in books which contain many words which the author thinks may give the reader trouble. A book on South American foods might well have a glossary giving the Spanish and Portuguese equivalents for bake, baked, fried, broiled, stewed, and so forth. Introductory books in biology and botany not infrequently include a glossary of new terms. If your textbook in the subject you are finding difficult does not have a glossary, you will find it very helpful to make one of your own. A few blank pages of paper cut to fit in the book without protruding can be used to note new terms and their meanings. The glossary, like the index, can serve as a check-list during review, for if you know all the special terms used in the text, you are a long way on the road to a mastery of the course.

*Typographical symbols*, different type faces, and useful signs and abbreviations are liberally used in the best publishing tradition. Below is given a list of the more common of these aids to the better use of books.

## COMMON ABBREVIATIONS AND TYPOGRAPHICAL SYMBOLS USED IN BOOKS AND ARTICLES

- 1 \* —indicate footnotes to be found at the bottom of the page section or paragraph
- p. —page
- pp. —pages
- viz. —namely (*videlicet*)
- i.e. —that is (*id est*)
- e.g. —for example (*exempli gratia*)
- ibid. —same; refers to citation immediately preceding (*ibidem*)
- op. cit. —Machlin, op. cit. page 100, refers to the same book or article by Machlin referred to before but this time page 100 (*opere citato*)
- 100 f. —refers to page 100 and the following page, or 101
- 100 ff. —refers to page 100 and the following pages (*et sequens*)
- cf. —compare (*confer*)
- n. b. —note well, important (*nota bene*)
- Center Head—indicates a main division, or I, in the outline in bold face type
- Paragraph Heading—indicates a sub-point, or A, in the author's outline in bold face or italics.
- Type size to indicate outline indentations or subordination:

**BOLD TYPE CAPITAL LETTERS**

**Bold Capital and Lower Case Letters**

*Italic Capital and Lower Case Letters*

The common parts of books have now all been considered. There remains only the necessity of mentioning the fact that some authors, in their attempt to make their books more useful, include such things as *questions*, *problems* and *exercises*, suggestions for *supplementary reading*, *footnote explanation*, or *citation to authorities* quoted. Other authors may start each chapter with a *problem* or a *series of questions* or a *summary* of the chapter. *Diagrams*, *charts*, *tables*, *maps*, *pictures*, and *cartoons* are also common features of good non-fiction books. All these things are added at considerable expense to the

authors and publishers to make the book more useful. The only suggestion that should be given here is that the student should use to the full every aid the author gives.

#### QUESTIONS AND EXERCISES

1. Write the preface for a book you might do on *How to Build College Dormitories*.
2. Take one of your textbooks and beginning at Chapter I, start to prepare an index. When you have made about twenty entries, check to see if you can find them in the author's index.
3. Make a glossary of campus language. Include only terms which have wide common usage about the campus. Follow the form used in a glossary on one of your textbooks. Would your glossary be acceptable to the editor of your college paper?

## 9 How to Use an Anthology

One of the most useful books in any student's library is the anthology. An anthology is a collection of excerpts from, or individual examples of, the literature of a period, of a country, or of the whole world. Literally, the word is a combination of two Greek words meaning "flower" and "discourse," and the anthology has therefore been defined as a "collection or selection of flowers of discourse."

An anthology includes in one or two volumes material that the student would be able to assemble for himself only after a great expenditure of time and effort. Such a book is primarily serviceable for the college student in survey courses in English and American literature, but there are other anthologies—notably of foreign language literature, and volumes of selections restricted to specific types of writing as, for example, poetry.

### **KNOW THE ORGANIZATION OF YOUR ANTHOLOGY**

For the most part anthologies are arranged chronologically, proceeding from the earliest period to be represented to the most recent. Thus, an anthology of English poetry might cover the centuries that lie between *Beowulf* and "The Waste Land." The strict chronological framework is often sacrificed to permit a treatment by types—the epic, the lyric, or the dramatic, for example. It is well worth your while to read



carefully the table of contents to determine what plan the editor has followed in his compilation. The plan may be described in detail in the preface or introduction.

The expert editor compiles an anthology from authoritative texts and illuminates obscure points with footnotes and often extensive explanations. If translations are involved, the editor may examine a number in order to include the best; or he may make a new translation of his own. There is one special virtue to be found at times in an anthology. It may contain a story or play or poem that is out of print, and if not absolutely inaccessible, certainly very difficult to lay hold of. That a selection from any author is out of print, is no indication of its lack of historical or literary importance. By including it in an anthology an editor may be doing a real service for the student in connection with the study of a particular period or type of literature.

It would be a mistake to assume that an anthology is merely a collection representing the interests and preferences of the editor. Some, it is true, have been assembled for the avowed purpose of bringing together selections chosen only because of the editor's fondness for them, but such gatherings for the most part serve a different purpose from that of those now under discussion. The anthology which the student makes use of in a literature course in college is employed because it contains representative material and recognized masterpieces. One purpose of the editor in compiling such an anthology is to represent adequately the periods of literary history with characteristic selections, and another presumably is to include those examples of literary art whose preëminence has been established by general acclaim. There are, of course, anthologies devoted to representing minor poets or to other special purposes, for example, assembling non-Shakespearean Elizabethan plays, but any such collection for the undergraduate

would be used only with reference to advanced elective courses.

An anthology is a reference book as well as a book of selections. Although anthologies compiled for courses in English or American literature are, for the most part, complete in one or perhaps two volumes, some contain fairly detailed histories, as well as biographical material and notes. Others not so bulky include, nevertheless, quite extensive historical information, usually in the form of introductions to successive periods or different types. Thus it is easy for the student to lay his hands on historical facts and important biographical details, not merely the dates of birth and death, of the writers represented. All the characteristics of an anthology, specifically one designed for use in courses in English literature, may be illustrated by reference to such familiar publications as *Century Types of English Literature*, edited by McClelland and Baugh, *Century Readings in English Literature* by Cunliffe, Pyre and Young, *Romantic Poetry* by Stephens, Beck and Snow, *Anthology of Romanticism* by Ernest Bernbaum, and many others. With virtually no expenditure of time the student may learn such important facts as that Shakespeare was born in 1564, that Pope lived in the early eighteenth century, that Wordsworth and Coleridge published *Lyrical Ballads* in 1798, and that Tennyson wrote "In Memoriam" because of the death of his most intimate friend.

### MAKE THE MOST OF THE ANTHOLOGY

#### Read Widely

Although anthologies are used widely in the conduct of courses in literature, any one contains more material than would be comprehended within the limits of one specific course and offers an opportunity for wider reading. A student can continue reading in any period that stirs his interest, or

follow certain forms of literature as they have changed and developed from earlier times to our own. For example, an anthology used in a survey course in English literature would cover all the periods from the early Anglo-Saxon to the present. In discussing the Elizabethan period, the instructor in such a course might devote most of his attention to Shakespeare. The student equipped with an anthology, however, could readily become familiar with the writings of others who lived at the same time and whose genius was only a little less great than that of Shakespeare himself.

Becoming familiar with an anthology is like being introduced to a number of especially interesting people. At first you feel a little strange and perhaps a bit bewildered by the brilliance and originality of those whom you have just met, but you have hopes of coming to know some, if not all, of these striking people well and even of knowing a few of them intimately. For an introduction sometimes leads to a real knowledge of another person. You quickly become aware that there are several different groups about you, and readily conclude that, although they all may have certain challenging qualities, you will probably care more for the society of some than of others. Whereupon you set out to become better acquainted.

### **Make Comparisons**

Since it represents both authors and periods, an anthology invites the student to make comparisons. He may discover certain likenesses that he had not seen before with respect to two poets of the same period. Or he may find similarities in two authors between whom intervene many years or several centuries. The student reading "The Falcon of Ser Federigo" by Longfellow might see in it a resemblance to Chaucer's representation of certain people whom he knew. Likewise,

opportunities for comparison reveal contrasts as well as similarities, and by being able to turn instantly from one to the other a reader might be impressed with the great difference between the elegance of Restoration poetry and the simplicity of the folk ballads.

### **Use the Anthology for Review**

The student who has been given assigned readings in reference books in a college library may spend considerable time before he can even lay hands on a book he has been told to consult. It may be that the book he wants is on special reference and cannot be taken from the library; perhaps it is in use in the library at the time he has set aside for that particular reading; and if the book is not placed on any special reference shelf, the chances are very great, as every student knows, that it will be "out." Just at the time when books are most urgently needed they are hardest to find. Moreover, monthly quizzes and final examinations put an additional strain on the resources of any college library. Therefore the advantages of owning an anthology at such times are readily apparent. In survey courses it is quite likely that most, if not all, of the required reading is contained in an anthology. The student using an anthology in such a course finds reviewing for examinations a relatively easy matter.

### **AN ANTHOLOGY IS A GOOD BOOK TO KEEP**

The contents of an anthology are interesting not only to the college student. To a large extent a book of this kind illustrates the reading of mature people for pleasure, and the men and women in college will not be undergraduates for very long. They will find that among all their books the anthology which proved so useful for college work is one of those most worth keeping. It is not like the textbook in a particular course

devoted to a subject which very possibly the student will not continue to be greatly interested in. Because of its variety he will turn back to an anthology with pleasure in later years, and its arrangement is especially adapted to the reading of busy people who have only a few minutes to spend at any one time.

### AN ANTHOLOGY IS AN INVITATION

The college student in exploring an anthology is somewhat like an explorer of a different kind who comes upon a few grains of a precious metal in the soil of an unknown country. Under such circumstances a man is eager to go on, lured by the prospect of greater and greater deposits of pay dirt. He does not count the labor involved and is willing to work untold hours to discover the lode he is seeking. The whistle does not blow and there is no time clock for anyone who is constantly finding more and more to arouse his curiosity and interest. Within the pages of an anthology are examples of writing that have delighted millions of readers, sometimes one generation after another for several hundred years.

Suppose you had never read any of the stories, let us say, of Bret Harte. If you came across "The Outcasts of Poker Flat" for the first time in an anthology of American literature, would you not want to know something about the author, Bret Harte, what kind of man he was, how he lived, and more important still, what else he had written? Would you not be very eager indeed to read another story of the same kind? Or you might never have heard of A. E. Housman until you came upon these lines in an anthology: <sup>1</sup>

When I was one-and-twenty  
I heard a wise man say,  
"Give crowns and pounds and guineas  
But not your heart away;

<sup>1</sup> *A Shropshire Lad*. By permission of Henry Holt and Co., publishers.



Give pearls away and rubies  
But keep your fancy free."  
But I was one-and-twenty,  
No use to talk to me.

When I was one-and-twenty  
I heard him say again,  
"The heart out of the bosom  
Was never given in vain;  
'Tis paid with sighs a plenty  
And sold for endless rue."  
And I am two-and-twenty,  
And oh, 'tis true, 'tis true.

Would you not want to read more of a man who could say so much in such brief and beautiful words? If you pursue interests of this kind, you will find the ore that lies below the surface—those deep, rich veins of reading to which an anthology is an introduction.

### A FINAL SUGGESTION

The student who reads widely will be interested in finding for himself an answer to the question, "What would you put in an anthology of English and American literature?" If he were to start to make an anthology he would find that there are various absorbing matters to be settled before this question can be answered. Should a complete play of Shakespeare be included? How many stories of Kipling should be put in? How much space should be given to Edgar Allan Poe? How can the modern novel best be represented? It would be more practical, of course, to narrow the subject and consider a single type or a brief period. You might take your favorite poets and arrange an anthology in which each would be represented. You will discover that deciding upon a table of contents for such a collection is an engrossing and delightful occupation. An appropriate motto for such a book is to be found in the



words of John Masfield: "The days that make us happy make us wise."

#### QUESTIONS AND EXERCISES

1. Do you consider the inclusion of biographical and historical data to be of value in an anthology? Why?
2. Can you justify an anthology in which selection is based solely upon an editor's preference?
3. What is the purpose in making an anthology chronological?
4. Would all anthologies covering the same field and period necessarily include the same selections? How would you account for differences?

# 10 How to Read a Textbook Assignment

The reading of non-fiction is one of the major activities in the intellectual life of a college student. Improvement in comprehension and rate of reading textbook material will be an asset in increasing scholastic effectiveness. As higher-level habits involved in the reading of condensed, abstract non-fiction are developed, learning becomes greater in quantity and more permanent in quality.

## READING SKILLS REQUIRED

The skills you use in reading will differ from one subject to another; you tackle a ten-page chemistry assignment in one way, a fifty-page sociology assignment in quite a different way. You use a different approach in reading material within one subject-matter field, that is, the skills required in reading the sociology textbook will differ from those employed in the supplementary assignments of that course. Even within a given textbook, the type of reading done will depend upon the nature of the section and the purpose and needs of the reader. It is the student's job to recognize his purpose and to employ the appropriate process of reading. In general, a five-point program, which will be described in detail, has been advantageously practiced in mastering college textbook assignments.

### I. Rapid Skimming

The first step in tackling a new assignment is rapid skimming of the whole for the purpose of learning the author's

organization. Although it is as important a process as the readings which follow, the step should consume no more than 5 minutes for the average assignment.

In skimming, the eyes run down the middle of the page in a zigzagging fashion seeing as many of the words along the edges as possible. In the first attempts at such a cursory sketching, a reader will not have too great faith in the ideas he gleans; but with practice, he will soon be able to gain an adequate bird's-eye view of the whole.

First and last sentences, first and last paragraphs, blackface type center and side headings, and summaries are keys to the scope and the organization of the chapter. With the knowledge of the whole, the reader can see relationships existing among the parts.

Skilful skimming is the key to orientation. This initial step in tackling an assignment helps the reader to place emphasis more effectively in the second step, careful reading.

## **2. Careful Reading**

Nothing should break the continuity of the development of the general theme in this second study process. The student should read from the beginning to the end of his assignment as rapidly as his ability to gain accurate impressions will permit. He pauses only to place question marks in the margin where the ideas seem vague, or to underline words that have little or no meaning.

He must react to those lifeless symbols on the pages. The passive process of the eyes' racing over the print without the mind's generating ideas from the combination of words ends with the oft-heard, "I've read that whole chapter, and I don't know a thing about it." Careful reading is an active process: the greater the contribution of the reader, the deeper is the significance of the material to him.

### 3. Recall

With the book closed, the student attempts to recall the main ideas and supporting details. He jots down the weak spots in his summarizing and determines the areas of the chapter that need more careful attention on the next attack.

### 4. Study-Type Reading

The individual is now ready to tackle the rereading of those sections which were labeled hazy on the first careful reading. He then clears up vocabulary deficiencies and points which he was unable to recite upon satisfactorily.

With accurate impressions of the ideas developed in the assignment, the efficient student finds it profitable to *make associations* between the new ideas and his background of experience. He reinforces new concepts and clarifies difficult or detailed data by *making diagrams* and *charts*; he gives *illustrations* of principles and *applies* them.

*Note making* is so commonly practiced during study-type reading that it scarcely needs to be mentioned. It is taken for granted that students who wish to do a thorough and permanent job on the first careful reading will develop during the process an organized set of notes (see section on note making). The writing of the ideas as one goes along tends to keep attention on the task at hand, and the resulting notes make possible at later dates a rapid review of the material read.

Inadequate understanding at the end of careful reading is frequently the result of poverty of *vocabulary* (see section on developing vocabulary). Very often the thread of thought is broken when the reader has to guess at the meaning of too many words.

Textbooks frequently contain within the body or in a glossary the definitions of technical key words which one must

know in order to understand and interpret the material. If such help is not given within the book, students must get the habit of resorting to a standard dictionary to seek information on the unknowns.

A vocabulary file of  $3 \times 5$  cards is a time-saver in word building. It is often true that we look up certain words in the dictionary more than once. If the word is written on one side of a card, and the meaning along with synonyms is listed on the other, the student can use the file for drill on mastery of unknown words.

### 5. Recitation

The *recitation method*, that is, devising questions and formulating answers, is a tried technique (see section on preparing for examinations). Experiment verifies it as a definite advantage in developing better concentration and higher organization of ideas.

RECITATION VERSUS REREADING

DIVISION OF TIME BETWEEN READING AND RECITATION	MATERIAL STUDIED			
	16 Nonsense Syllables, Per Cent Remembered		5 Biographies— Total of 170 Words Per Cent Remembered	
	<i>Imme- diately</i>	<i>After 4 Hours</i>	<i>Imme- diately</i>	<i>After 4 Hours</i>
All time devoted to reading	35	15	35	16
$\frac{1}{5}$ of time devoted to recitation	50	26	37	19
$\frac{2}{5}$ of time devoted to recitation	54	28	41	25
$\frac{3}{5}$ of time devoted to recitation	57	37	42	26
$\frac{4}{5}$ of time devoted to recitation	74	48	42	26

From A. I. Gates and others, *Educational Psychology*. By permission of The Macmillan Company, publishers.

A study of the table shows that the greater the amount of time devoted to recitation, the greater the percentage of the lesson recalled and the greater the permanency of retention.

### CONCLUSION

The reader may think the process of reading non-fiction a slow and laborious one. However, if he is willing to give a fair trial to the preceding directions in his preparation of textbook assignments, he will find that he will not only save time but also increase his interest in and knowledge of subject-matter.

College students could make tremendous improvement in their reading of non-fiction. Since 20 per cent of them demonstrate less than eighth-grade reading ability, there is a definite need for a systematized attack on the problem.

College faculties are slowly developing an awareness of their responsibilities in teaching the higher-level reading skills that college work requires. But the real labor rests with the student who must follow the suggestions of instructors and clinicians, and through consistent and regular practice, establish a sound basis for improvement. Since success in college depends in a large measure on the student's ability to read non-fiction rapidly and effectively, development of that skill deserves a fair share of attention.

### QUESTIONS AND EXERCISES

1. What is meant by the phrase, "Skilful skimming is the key to orientation?"
2. What do the position and size of the headings used in this chapter indicate?
3. What is the essential difference between careful reading and study-type reading?
4. How can you account for the fact that recitation contributes to permanency of retention?



## 11 How to Read the Newspaper

Natural curiosity impels Americans to read the newspaper daily to see what changes have occurred in the affairs of the world, to get eminent sports writers' accounts of inter-collegiate matches, to see what progress Little Orphan Annie or Superman has made beyond yesterday's status.

If college students are to be intelligent about what is going on, they need to acquire skill in reading "on the run" much that is in the newspaper and reading very carefully some of the newspaper. Much is of only general interest to readers; on the other hand, important news articles, editorials, signed columns, and articles of specialized interest to individuals should be "chewed and digested."

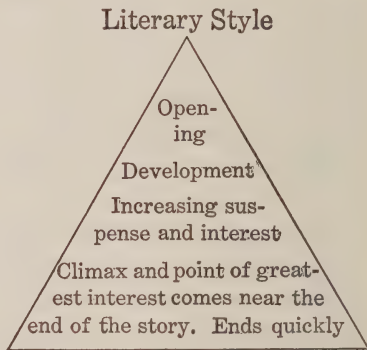
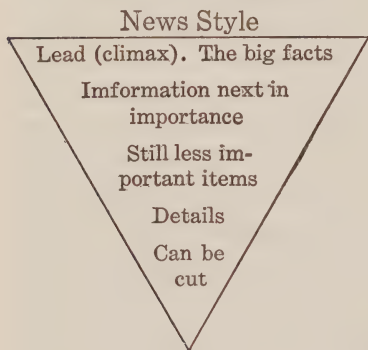
Few people understand what a wealth of information is contained within the pages of a good daily newspaper. Besides the big news of the first two or three pages, the metropolitan daily includes book, play, movie, and radio reviews, business developments, sports articles, editorials, signed columns, special features in health, science, gossip, weather, and human interest stories; in fact, so much is offered that many newspapers print an index on the first page to help the reader find what he wants quickly. The informed reader will not read all of the paper intensively, but he ought to sample it to know what he wishes to read carefully. Moreover, keen thinkers regularly consult more than one paper before they feel well informed on any big issue or capable of drawing sensible conclusions.

Broadly speaking, there are four kinds of reading an any newspaper: *news*, *editorials*, *features*, and *advertising*. News stories contain facts without opinions; they are streamlined for rapid reading. Editorials pass a paper's comment on the day's news; they require careful reading and suspended judgment, for they are opinionated. Feature stories are written from human interest angle; they frequently arise from the news but they are personal in tone. How fast one reads them depends upon the status of the writer and the special interest of the reader in them. Advertising aims to sell commodities, services, and beliefs.

### NEWS STYLE STARTS WITH THE CLIMAX

News articles are written to give information, and they should be read for general facts. The straight news account is a sample of the simplest form of narration; its content is organized in order of importance and is presented impersonally. In general, newspaper stories are told three times, once in the headline, once in what is called the "lead" (the opening lines of the story) and then again in detail in what follows. The headline, added by the copyreader, summarizes the article, and by its size, wording, and position on the page, influences the reading interest in the article and the publicity given it. The first paragraph states the most important facts and always includes most of the five "*w*'s" of journalism: *who?* *what?* *when?* *where?* and *why?* The remainder of the article is devoted to a detailed account, which gives sources of facts and which tapers in importance until, at the end, sentences and even paragraphs can be "cut" to make the article fit the space allotted to it by the make-up editor. Often, it is necessary to read only the headlines and the first paragraph to get the news. It is easy to take in each headline at a glance, and to get the whole story by skimming the article.

The intelligent newspaper reader knows that the important news comes from governmental agencies and urban centers where significant decisions regarding the welfare of people are made by statesmen, financiers, politicians, and legislators. Perhaps most important to us is the news that comes from Washington, D.C. Much of our national news and virtually all foreign news appearing in American newspapers is gathered by the three large press associations: Associated Press (AP), United Press (UP), and International News Service (INS). The Associated Press is a coöperative, non-profit organization serving only its members, but United Press and International News Service are subsidiaries of newspaper chains and sell their services to anyone who can pay their price.



The front page gives the big news. The news considered most important by the editor is usually in the right-hand column on the front page. The next in importance is in the left-hand column. The top half of the page is more important than "below the fold." Pages two and three, and in some papers the last page, are usually next in importance to page one.

Consider the differences in the front pages of, for example, the *New York Times* and the *New York Daily News*, and

you will realize the differences in standards and working formulas for obtaining wide circulation. Both papers have on the front page that which the editor thinks will interest the greatest number of its readers. One is dignified and conservative in style, whereas the other practices sensational headlines and lurid pictures. Frequently, however, even in most conservative papers, headlines for articles of importance spread across two or three columns and occasionally across the whole width of the page. Some papers use a banner head across the entire width of the front page in every issue. Even the most intelligent readers are led to believe in the importance of the news by its position on the page, the amount of space it occupies, and the size of the headline.

In time of war, all newspapers have plenty that is exciting to record and disseminate; unfortunately, too often in normal years, the chief staple of newspapers is likely to be accidents, crimes, horrors. Yet one great newspaper in particular, the *Christian Science Monitor*, has proved it possible to provide absorbing news with no emphasis at all on crimes, horrors, and misfortunes. Among metropolitan papers of high standards are the *New York Times*, the *New York Herald Tribune*, *PM*, the *Kansas City Star*, and the *St. Louis Post Dispatch*.

### EDITORIALS SET THE PAPER'S POLICY

When the reader turns to the editorial page, his purpose in reading changes as does the purpose in writing. Editorials analyze the news, condemn stupid actions, praise wise and generous acts, suggest reforms, and pass comment on the world in general. The editorial is different from any other form of journalistic writing, being very near the essay in that in the editorial column, the writer is free to say what he thinks or to give as much of his opinion as the policy of his paper allows. Editorials help direct public thinking on particular

subjects, reflect public opinion on issues, criticize plans, and forecast possibilities. Therefore, the editorial page should be read most thoughtfully with attention to clear, detailed understanding of the issues involved, the presentation of the facts, and the conclusions drawn, for in its editorials a paper sets its policy and influences the thinking of the American public. More vivid commentaries on the day's news are the cartoons which appear elsewhere in the paper as well as on the editorial page. The best cartoons usually have one big idea that is obvious at first glance. Cartoons have long been powerful political weapons. Certain comic strips such as Joe Palooka, and Little Orphan Annie have definite attitudes with which the cartoonist is trying to indoctrinate his readers; they are of patriotic and political propagandist value sometimes.

Within the masthead are data about the owner, the publisher and publication of the paper, the paper's policy, and its political affiliations. Most papers are biased in their political support, and since politics and government are among Americans' most fiercely cherished privileges, the wise college student will want to investigate the background and the political platform of the paper he is reading before he accepts or rejects what he reads.

In economic and social affairs papers may be equally biased, openly and sincerely so. The letters-to-the-editor and the news commentators' columns which are given space on the editorial page are frequent indices of the paper's special point of view. Since practically every newspaper has its special point of view, it is necessary to read regularly more than one paper to get a well-rounded picture of the news and its interpretation. The owner-editor type of management is today the exception rather than the rule. "Chain" ownership is most common among city newspapers. The leading chains are the Hearst, Scripps-Howard, Paul Block, Brush-Moore, and Frank E. Gannett



papers. Knowledge of the ownership of the paper will explain its editorial tone.

### FEATURES "APPEAL"

In contrast to straight news, there is a popular form of writing called the feature article which "plays up" the human side of the news in order to attract attention or to appeal to some emotion. The feature story covers much less territory than the news article, but it covers it much more intensively and emotionally. For example, the day's news may carry an account of the damage done to a large store by fire. In the same issue or in the next day's copy, there will be a crop of feature articles on other big fires in the history of the community, the history of the store, pictures of the store before and after the fire with accompanying copy and items of similar appeal. These are known as human interest stories.

The word *feature* is confusing. Of a different nature from the human interest stories are the features that appear regularly on the same page. Such features are the comics, household hints, beauty aids, serial stories, fashions, and cross-word puzzles. These are of definitely specialized appeal, sought out by those individuals with particular interests in them and read with the speed or care which the reader feels they merit to suit his purpose.

Events of the day, trivial as well as important, attract special comment from talented writers. Such remarks appearing regularly under the same heading form a feature known as the column. A column must be timely, pertinent, and clever. Its context may be bitter, gentle, pathetic, gossipy, humorous, or whatsoever the columnist pleases at the moment or what he affects for his style.

A columnist's manner of writing is a combination of news, editorial, and feature in which he expresses himself freely, as



in a personal essay. Walter Lippmann, Walter Winchell, Westbrook Pegler, Drew Pearson, Dorothy Thompson and Eleanor Roosevelt are among the best-known columnists in this country; their columns are syndicated and appear in hundreds of papers, small and large, throughout the land. Walter Winchell had at one time 25,000,000 readers; many other columnists claim 10,000,000 to 20,000,000 readers. Columns are popular because they entertain, and while many columnists have a serious purpose in informing people and interpreting the news, too frequently they pad their columns with inconsequentialities in order to fill out their column space.

All feature material is enticing because of its personal style and friendly intimacy between writer and reader, yet therein lies its danger to readers. By exercising ingenuity, the feature writer can make a simple thing a vital one, and a commonplace item an important event. Read again "on the run"; keep an open mind. Skim the article first to see if it merits your careful, complete examination. Suit your reading rate to your purpose. The comics require a casual glance; Walter Winchell's *On Broadway*, a skimming; Drew Pearson's analysis of the President's message to Congress, a very careful study.

#### ADVERTISING HELPS BALANCE THE BUDGET

When you buy your daily paper, you pay only a fraction of its cost because of the advertising. Some newspapers are dependent upon advertising for as much as 75 per cent of their income, and they devote as much as 50 per cent of their space to it. On the other hand, only if the other departments function at their best, can the advertising department be most lucrative.

Advertising in the newspaper is of two kinds, "classified" and "display." The classified advertisements include want ads, miscellaneous things for sale, jobs wanted, and so on. If you

wish to buy a second-hand bicycle or to get a part-time job, you turn to the classified advertisements. These are neat, clipped, boxed items appearing usually on the same page of each issue. If you wish to buy a new radio, living-room furniture, or an automobile, you need to glance throughout the paper at the display ads of several inches, several columns, one-fourth, one-half, or a whole page.

The primary purpose of advertising is to sell commodities, services or beliefs, yet advertisers wield a tremendous educational power in that often they create a desire for goods heretofore unknown to the reader or beyond his immediate reach. In creating wants, advertisements directly influence standards of living for good or ill depending upon the scruples of newspapers and advertisers in general.

In reading the classified ads the job seeker must learn to guard against *positions* which involve selling from door to door and *easy earnings* of \$200 a month. In reading display advertisements learn to be sensible about the pretty girl in the cigarette ads, the sale of a radio for \$7.95 when it usually sells at \$13.95, and extravagant praises of this or that movie. Much advertising exploits the public, but good advertising is truthful, informative, and of worthy motive in its appeal.

Compare various newspapers and you will discover that the character of each is indicated somewhat by the kinds of products advertised and the manner in which they are advertised as well as by its news, editorials, and features. In a democracy newspapers are powerful instruments for disseminating information and molding public opinion. Despite competition with the radio and movie news reel, despite the threat of television and facsimile, newspapers will continue to be important factors in recording, reporting, and interpreting local news and moods, national and world events and trends. Intelligent citizens acquire the newspaper habit.

## QUESTIONS AND EXERCISES

Compare three daily newspapers: the New York *Times*, a small city daily, and a small town daily. Use the paper of your own home town if it publishes a daily and procure the other two from the college library where there is probably a newspaper room with a variety of newspapers on file. It will be profitable to use three copies of the same date. Answer the following questions for each.

1. How much space is given to news?
2. Does local, national, or world news occupy the greatest amount of space? Which occupies least space?
3. How much space is given to feature material?
4. How much space is given to editorials?
5. How much space is given to advertising?
6. Which occupies more space: advertisement of local products or advertisement of products consumed over the nation?
7. What conclusions do you come to about the proportion of different kinds of reading material and the reason for the proportion?
8. If the three newspapers show a difference in the space allotted to world news, how do you account for the difference?
9. What facts do you learn about the paper from the masthead of the New York *Times*? of the small city daily? of the small town daily?
10. Read an editorial. What is the topic of discussion? Is the reasoning sensible and logical? What conclusion does it reach?
11. Analyze a news story from the front page of each paper. If the papers are your property, label the parts according to the principles of news writing explained in this section.
12. After you have studied the three papers carefully, discuss the merits and weaknesses of each paper and their relative values to intelligent citizens.

## 12 How to Read Graphs, Tables, and Maps

Words are the common symbols used to convey meaning to a reader, but some data can be portrayed more vividly by means of graphs, tables, or maps. These devices summarize and unify data so that, at a glance, the reader is able to sense the relationships. To read and to interpret graphs, tables, and maps require skill; however, those students who practice soon learn how to grasp the information easily and quickly, and they usually retain very realistic impressions for a very long time. Not all students have the same wide use for a reading knowledge of graphs, tables, and the like, but every student at some time or another makes use of the technique.

### INTERPRETING GRAPHS

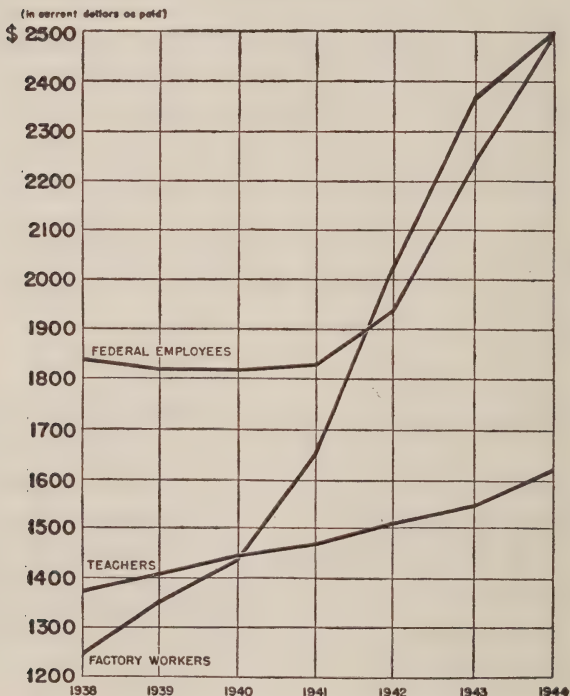
In studying a graph it is important to read the title thoughtfully and then if it is a line or bar graph, to examine the labeling of the horizontal and vertical lines to identify the units. The important idea is always one of relationship: how one factor varies in terms of another; for example, how *weight* varies with *age*, how *intelligence* varies with *occupational level* and so on. The names *line*, *bar* and *picture* are given graphs according to their construction.

#### The Line Graph

The following graph is called a *line graph*; its title indicates that it deals with the *annual income from salaries and wages*

beginning with figures of 1938 and ending with those of 1944. The horizontal line (axis of the abscissa) is divided into units of one year; the vertical line (axis of the ordinate) indicates amount in salary, each block representing one hundred dollars. It would require many hundreds of words to furnish the information that this graph can give upon inspection.

### ANNUAL INCOME FROM SALARIES AND WAGES 1938-1944.



Sources: Teachers (teachers, principals, and supervisors) from U.S. Office of Education and NEA Research Division. Federal and factory employees (salaried and wage-earning) from Bureau of Foreign and Domestic Commerce, U.S. Dept. of Commerce. All figures for 1944 estimated by NEA Research Division.

Res. Div., Nat. Educ. Assn.



Try to answer these questions on the income graph.

1. What was the approximate salary of the average factory worker in 1938?
2. What was the approximate salary of the average teacher in 1938?
3. What was the approximate salary of the average federal employee in 1938?
4. Which group received lower salaries in 1939 than in 1938?
5. When did federal employees receive their greatest increase in salary?
6. About how much larger is the average factory worker's salary in 1944 over 1938?
7. About how much larger is the average teacher's salary in 1944 over 1938?
8. About how much larger is the federal employee's salary in 1944 over 1938?
9. In what year did factory workers and teachers receive about the same salary?
10. How do you account for such changes in income between 1938 and 1944?
11. What effect do you think these data have on schools?

The second line graph, rather more complex than the first, is further indication of the value of graphic presentation as a word saver. Here the relative value or desirability of the four factors involved is readily discernible. Depending upon your purpose in using the graph, you can quickly take away the central idea here presented, or you can go beyond this to a careful consideration of the values given on the abscissa and the ordinate.

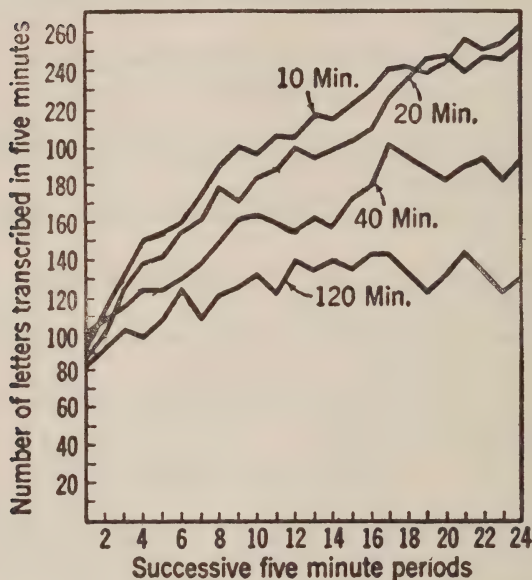
Answer these questions according to your interpretation of the second line graph.

1. Which makes for greater economy: spacing the practice or doing the task at one sitting?



2. According to the graph is using time all at once better than any manner of distributing time?
3. What arrangement surpasses all others?

DIFFERENT RATES OF IMPROVEMENT WITH DIFFERENT DISTRIBUTIONS OF LEARNING

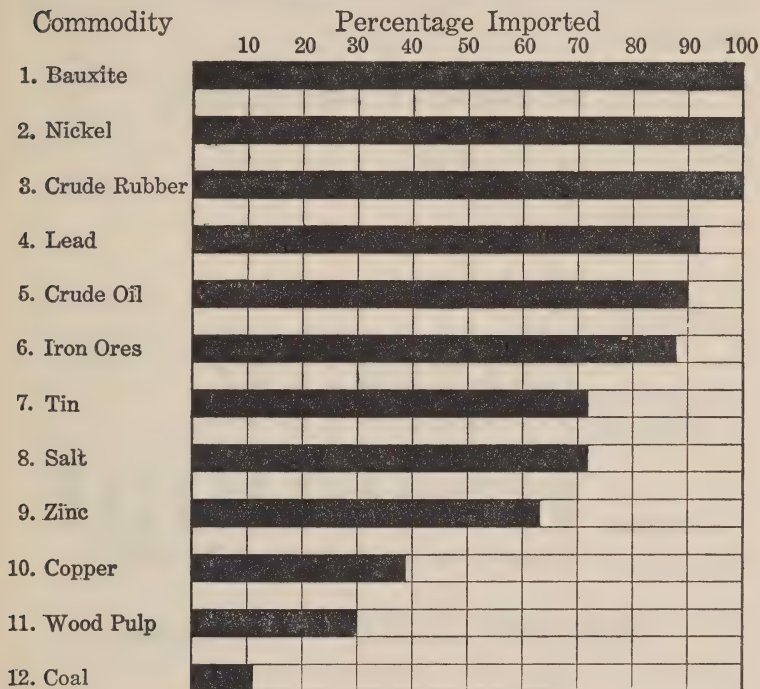


*Journal of Educational Psychology*, Vol. 3 (1912); pp. 209-213. By permission of D. Starch.

### The Bar Graph

Bar graphs express amounts by heavy lines or bars drawn to scale. This type of graph is easily comprehended, inasmuch as only two factors are involved: in this instance (1) the commodity, and (2) the percentage imported.

## RAW MATERIAL DEPENDENCY OF JAPAN PROPER, 1936



Figures taken from the *Japan-Manchoukuo Year Book*, 1940, pp. 365-366.

Answer the following questions about the data revealed in the bar graph.

1. What does the bar graph indicate?
2. What kinds of materials are considered?
3. What commodities did Japan derive in a large measure from her own resources?
4. What interpretation do you make of these data?

### The Pictograph

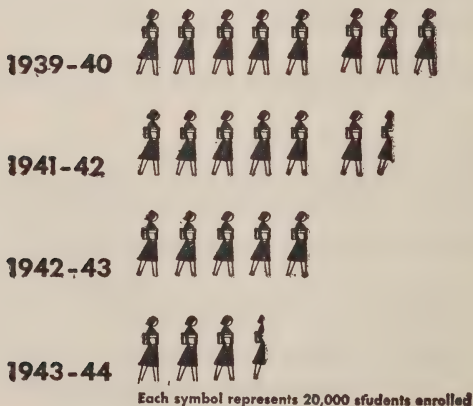
The pictograph, as implied in the name, employs pictures or symbols of the thing compared. The comparison is based

on the number of symbols used. Generally statistics are close approximations rather than exact statements in this form of the graph.

## EMERGENCY CERTIFICATES



## TEACHERS COLLEGE ENROLMENT



Courtesy of the National Education Association.

Try these questions on the pictograph.

1. About how many emergency certificates were issued in 1943-44?
2. About how many more students were enrolled in teachers colleges in 1939-40 over the number enrolled in 1943-44?
3. What does the great increase in the number of emergency certificates issued signify?
4. What interpretation do you make of the pictograph?
5. Do you believe that the data of the pictograph is as accurate as those of a table? Of a line graph?

### INTERPRETING TABLES

In reading tables, the student must first observe the title, then the headings of the columns, and finally the relationships between the columns. The significance of the data of the tables is not so immediately apparent as it is in graphic representations. One must spend a longer time in study in order to be able to make the necessary interpretations.

Complete the following sentences.

1. A score of 53 in the fourth grade is equivalent to a score of \_\_\_\_\_ in the eighth grade.
2. A pupil in the fifth grade earning a score of 60 has a reading age of \_\_\_\_\_.
3. A boy in the seventh grade has a reading age of 12-6. His score is \_\_\_\_\_.
4. A score of 98 on the eighth-grade level gives the pupil the same reading age as a score of \_\_\_\_\_ on the fifth-grade level.
5. A score of 110 on the sixth-grade level equals a reading age of \_\_\_\_\_.
6. A score of 110 on the eighth-grade level equals a reading age of \_\_\_\_\_.
7. A score of 110 on the ninth-grade level equals a reading age of \_\_\_\_\_.
8. A reading age of 10-0 on the fourth-grade level is earned with the score \_\_\_\_\_.
9. A reading age of 10-0 on the fifth-grade level is earned with the score \_\_\_\_\_.
10. A reading age of 10-0 on the sixth-grade level is earned with the score \_\_\_\_\_.

DIFFERENTIAL MENTAL-AGE-GRADE NORMS  
IOWA SILENT READING TESTS \*

Reading Age		Grades					
Yr.	Mo.	4	5	6	7	8	9
17	0						187
16	9						182
16	6					173	178
16	3					168	174
16	0					164	170
15	9					159	166
15	6				152	155	161
15	3				148	150	158
15	0				144	146	153
14	9				140	141	149
14	6			133	136	138	144
14	3			129	132	135	140
14	0			124	128	131	136
13	9			119	124	127	132
13	6			115	120	123	128
13	3			110	116	118	124
13	0		90	106	111	114	119
12	9		88	102	107	110	115
12	6		86	98	102	106	110
12	3		83	93	98	102	
12	0	75	81	89	92	98	
11	9	72	79	85	89		
11	6	69	77	82	86		
11	3	66	74	77	80		
11	0	63	70	73	76		
10	9	60	66	70			
10	6	57	63	67			
10	3	53	60	63			
10	0	48	56	60			
9	9	43	52				
9	6	37	47				
9	3	33	42				
9	0	29	37				
8	9	27					
8	6	25					
8	3	24					
8	0	23					

\* The figure in heavy type in each Grade column represents the 50th percentile.  
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**RATE PERCENTILE SCORE FOR SCHRAMMEL-GRAY  
HIGH SCHOOL AND COLLEGE READING TEST**

Rate Percentile Scores

<i>Grades</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>College Freshmen</i>
<b>Percentiles</b>							
99	185	185	185	185	185	185	185
95	183	183	184	184	184	184	184
90	182	182	182	182	182	182	183
85	180	180	181	181	181	181	182
80	172	173	175	177	180	180	181
75	163	164	166	169	175	175	180
70	156	157	158	163	170	170	177
65	151	152	154	158	163	165	173
60	145	146	150	154	158	159	169
55	138	140	145	150	154	156	162
50	133	135	139	144	150	153	158
45	128	130	135	139	146	149	154
40	123	124	131	135	141	143	152
35	116	117	126	131	136	138	147
30	111	112	121	125	131	133	142
25	107	107	116	120	125	128	137
20	101	102	110	114	118	122	130
15	94	94	104	107	112	114	123
10	86	86	97	100	106	106	114
5	75	75	89	92	95	97	105
1	55	56	70	73	80	82	92
<b>No. Cases</b>	252	256	1426	1016	728	715	1424
<b>S. D.</b>	41.4	42.2	37.0	36.3	37.0	34.8	31.8

Read table thus: In grade 7 a score of 185 merits a 99th percentile rank; one of 183, a 95th percentile rank; one of 182, a 90th percentile rank; one of 133, a 50th percentile rank; and so on.

H. E. Schrammel and W. H. Gray, *Manual of Directions: Schrammel-Gray High School and College Reading Tests* (Bloomington, Ill.: Public School Publishing Co., 1940).



Using the data provided in the table on percentile scores, complete the following sentences.

1. A college freshman earning a score of 180 rates a percentile score of \_\_\_\_\_.
2. A college freshman who has a median score of 158 ranks in the \_\_\_\_\_ percentile; the same score earned by an eleventh grader places him in the \_\_\_\_\_ percentile; 158 earned by a tenth grader places him in the \_\_\_\_\_ percentile.
3. For a college freshman the difference in raw score between the 25th and 50th percentile is \_\_\_\_\_.
4. A score of 133 for a seventh grader corresponds to a score of \_\_\_\_\_ for a college freshman.
5. The test results of how many college freshmen were used in devising this table?
6. In the upper quartile for college freshmen, scores range from \_\_\_\_\_ to \_\_\_\_\_.
7. There is a difference of \_\_\_\_\_ points between the lowest and the highest score corresponding to the 25th percentile.

### READING MAPS

Webster defines *map* as a representation, usually flat, of the earth's surface or a part of it. A map pictures geographic relationships as vividly as a graph shows the change in the cost of a commodity over a period of years. And maps, like graphs and tables, convey a wealth of information in a small space and are well worth careful study.

### The Coördinates

In order to locate a point on the surface of the earth we must have recourse to a set of coördinates known as *longitude* and *latitude*.

If a plane is passed through the geographic poles, the resulting intersection of the earth's surface is called a *meridian of longitude*, an imaginary line running north and south. That meridian which passes through Greenwich, England has been arbitrarily designated as the *prime meridian*; extended, it divides the nearly spherical world into two hemispheres, the eastern and

the western. Starting at Greenwich and traveling eastward, meridians of longitude are numbered from 0 to 179 degrees and are called east longitude. From Greenwich westward, meridians are also numbered from 0 to 179 degrees and designated as west longitude. *Longitude, therefore, expresses the position of a place east or west of Greenwich.*

Now if another plane is passed through the center of the earth in such fashion that it bisects and is at right angles to a line drawn between the poles, the imaginary surface result is the *equator*, basis of latitude measurement. The equator runs east and west, and divides the world into a northern and southern hemisphere. *Parallels of latitude*, as implied in the name, are planes passed through the earth parallel to the equator; are measured north and south of the equator from 0 to 90 degrees. *Latitude, therefore, expresses the position of a place north or south of the equator.*

To locate New York City, for example, in terms of these coördinates, we would begin where the Greenwich meridian (0 degrees of longitude) intersects the equator (0 degrees of latitude). This occurs just south of the Gold Coast of Africa. Now, measuring the shortest way around (westward), we would follow along the equator until we came to the meridian of longitude running through New York City. This is roughly the 75th meridian. Then, proceeding northward up the meridian, we would find the City roughly on the 41st parallel of latitude. We have now located New York with reference to the point of origin; it can be expressed as approximately 41 degrees north latitude, 75 degrees west longitude.

## The Projections

Any attempt to reproduce the curved surface of the earth on the plane surface of paper necessarily involves distortion of the original for the same reason that one half of a rubber ball



FIGURE 1  
Simple Conical Projection



FIGURE 2  
Bonne's Projection

cannot be forced to lie flat without stretching or tearing. This distortion in map-making manifests itself in two forms: in shape and in area. *Conformal or orthomorphic projections* are those in which the maker has as his basic interest the preservation of comparative shapes. In *equal-area or equivalent projections* emphasis is placed on the maintenance of true areal relationships.

Map projections may be classified under five general headings, depending upon the method of construction employed. These are (1) the *conical*, (2) the *azimuthal (zenithal)*, (3) the *cylindrical*, (4) the *homolographic*, and (5) the *interrupted*.

*The Conical Projections.* The *simple conical* projection (Figure 1) is accurate in shape and area only along the standard parallel of latitude upon which it is constructed. North and south of this parallel distortion grows as distance increases.

The *Bonne* (Figure 2) and *polyconic* (Figure 3) projections are approximately equal area and, in addition, provide excellent conformality where the area to be reproduced does not extend through many degrees of longitude, i.e., east and west. On either side of the central meridian distortion of shape increases.

The conical projections are best used for areas of less than hemispherical size, preferably in the middle latitudes.

*The Azimuthal (zenithal) Projection.* *Lambert's equivalent azimuthal* projection (Figure 4) is characterized by equal areas and especially by the fact that any point on the map is located on a true bearing from the map's center (that point in Figure 4-A where the meridians of longitude converge). Despite distortion in evidence at the margins, this form of map is perhaps the best where large areas are to be included.

*The Cylindrical Projection.* Most common is the *Mercator* projection (Figure 5), which is basically a conformal repre-

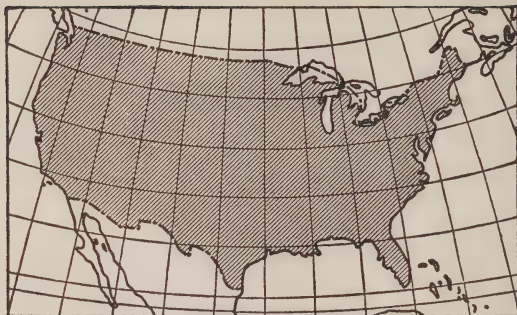


FIGURE 3  
Polyconic Projection



FIGURE 4  
Lambert's Equivalent Azimuthal  
Projection



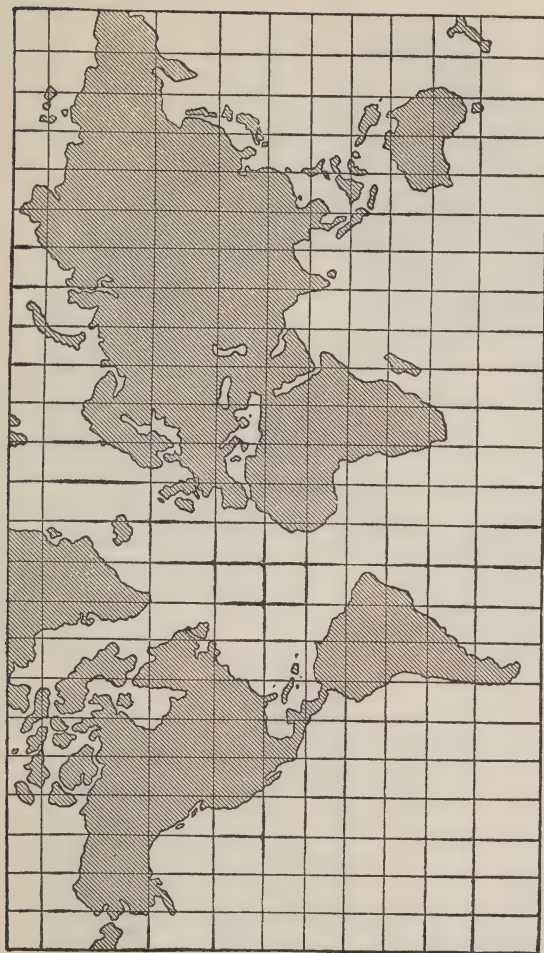


FIGURE 5  
Mercator's Projection





FIGURE 6  
Mollweide's Homolographic Projection

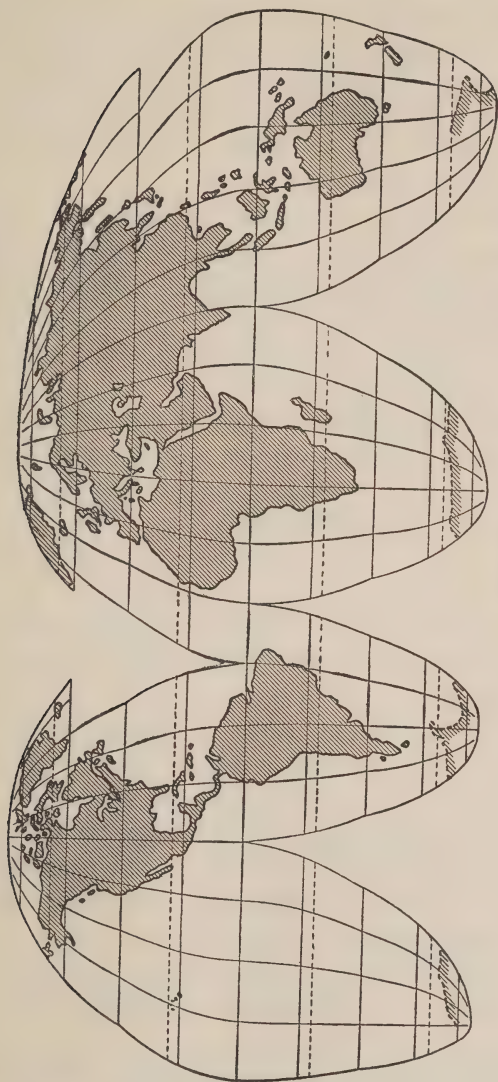


FIGURE 7  
Goode's Homolosine Projection

sentation. Areas in the higher latitudes are greatly exaggerated; Greenland, for example, appears on this map to be as large as the continent of South America, although in reality the ratio of areas is as one to nine. The chief use of the Mercator is for sailing charts, because a compass course plotted thereon appears as a straight line.

*The Homolographic Projection.* Mollweide's *homolographic* (Figure 6) is used in maps of the world, which it represents as an ellipse whose major axis (the equator) is twice the length of its minor axis (central meridian from pole to pole.) Shapes near the margins are badly twisted but areas throughout the map are equivalent.

*The Interrupted Projection.* Goode's *homolosine* (Figure 7) is an equal-area projection with an excellent degree of conformality effected by a sacrifice of map continuity; the gaps call for great exercise of visual agility.

## The Globe

Since as we have seen, it is impossible to show a true picture of a round world on a flat map, it is good to use a globe whenever possible.

The globe is a miniature model of the world that gives accurate pictures of areas both in relative area and shape, and is the only true method of representing the earth. On a globe will be found global relations as they really exist. By rotating this miniature world, one can select any point from which to view the world. What you see in the surrounding land and water areas depends upon your point of view.

Every college student should be familiar with globes, for the events of today and forevermore will assume global proportions.

*Flat maps*, nevertheless, are indispensable in the study of small, detailed areas. The globe would be of no value in study-

ing, for example, the distribution of cattle in a small area of a certain country. Flat maps can be drafted to serve a multitude of purposes, but we must accept the fact that we cannot flatten out a global surface and retain all the useful features of the globe.

### Aids in the Use of Maps

Good maps have a *single purpose* which the reader can usually determine by examining the title. If the map attempts to show many things, it is so cluttered that anyone becomes discouraged and fails to note significant details.

Symbol	Meaning
	Paved road
	Poor road
	Bridle path
	Railroad
	Church
	Hospital
	Cemetery
	Camp
	Airplane landing field
	Airway light beacon
	Telephone, or telegraph line
	Power plant

On the frame of the map are *guide marks*: numbers on two facing sides, letters on the other two facing sides. Along with this is an index of the names of places to be found on the map.

If a certain town is indexed C-3, we find it by locating where a line from C crosses a line from 3. However, the guide marks are made especially for each map, and cease to be useful if a map of different size or shape is used.

*Color* speeds up the process of reading maps. A key, or legend, which lists the meanings of the colors used, should be studied carefully. Some maps, particularly air maps, have contours colored in to indicate different elevations. Tints are also used in maps to show topography, geological formations, soil types, historical changes and distributions of all kinds.

To read maps efficiently we should recognize some of the more *conventional symbols* used by map-makers. A legend explaining the significance of the symbols is usually printed in the lower part of the map.

#### QUESTIONS AND EXERCISES

Answer these questions on the use of maps.

1. In what direction do latitude lines run? Longitude lines?
2. What are equal-area maps? . .
3. Which type of projection best shows the actual relationships of the earth's area from a given point?
4. Name one instance where a flat map, not a globe, should be used.
5. What are guide marks?
6. What situations will call for a knowledge of map reading?
7. Practice reading every map you meet.



## 13 How to Read Novels

Every year novels pour forth from the presses in a continuous tide. One best seller succeeds another and a hitherto unknown author makes a fortune from a single book. In any season a few novels become widely known, but for every familiar title there are innumerable others that remain unnoticed by the public at large. Yet these have their readers too, although the circle in each case is small and the author is known only to a limited group. When one observes the publication of fiction today, he comes to the conclusion that for a great many people the reading of novels affords a consistent entertainment.

Every undergraduate should try to develop an understanding and an awareness of literary values. Today when the range of publication is so wide, when the reader is constantly assailed by the enthusiasms of advertising, he must be able to determine for himself that which is worth serious attention. In college and afterward the reading of novels is apt to be a dangerous business. Only the person who has read carefully certain of those works of fiction which have survived the years, those which more than one generation have proclaimed good, will have a basis for comparison. It is only by perceiving those qualities which make a book great that one can distinguish between that which is merely clever and diverting for the moment and that which is a convincing portrayal of the joys and sorrows, the triumphs and defeats, the weakness and the



strength of men and women. In the last two hundred years the novel has shown that it may be a form of enduring literature, just as the great plays of the Greeks survive and are produced on modern Broadway.

Every novel, no matter how objective, reveals to some degree the personality of its author. Every great novelist is an embodiment of genius but at the same time a human individual; to understand him as such helps the reader to know the novelist's intention and purpose. If we are familiar with his life, we come to feel that we know him, and, moreover, we easily perceive why he has chosen the subjects he has written about and treated them in a certain way. Any one familiar with Dickens' life who turns to a reading of the novels will see instantly the close connection between Dickens' own childhood and the early days of David Copperfield, Pip, and Little Nell. In approaching a novelist then, try to become familiar with the important aspects of his life through reading a good biography. The well-known biographies, such as Lockhart's life of Scott and Forster's life of Dickens, are fascinating stories in themselves, but presumably a student does not have time to read them while pursuing a course in the novel which demands the reading of a number of books of considerable length. He would naturally turn to a shorter account—these are often based on biographies such as have been mentioned—and a brief and interesting presentation of an author's life is easily found in series like the *Great Writers* and the *English Men of Letters* and especially in the *Dictionary of National Biography*. Likewise many editions of novels contain a description of the author's life and, often, a discussion of his intentions and purposes in writing, in an introductory essay. A student or any other reader should not allow his opinions to be predetermined for him by a critic, but properly considered, the information and suggestions of

such an introduction to a work of fiction will be of great value.

To the college student as well as to the general public novels offer a form of recreation. Even if it is read for a college course, a novel should still be a source of pleasure. Yet the student under the weight of a heavy load of required reading feels that he must go ahead rapidly and sometimes even skip altogether parts that do not seem too important. A novel read in the above manner, however, may become in the end something like a building with only two walls or without a roof. If you drop out certain parts which the author has intentionally included, it is impossible to erect the structure he has in mind.

Novels are often long, but the length is, or should be, dictated by the nature of the story and the author's purpose. It is a fairly common superstition that novels of the past, those written perhaps a hundred to two hundred years ago, are long and those of the present are short. A student often says to himself that we don't have time today, we live too fast, for long books. But the facts do not bear him out, for tales like *Anthony Adverse* and *Gone with the Wind*, to say nothing of multiple-volume productions such as the stories of Jalna or Upton Sinclair's record of the present century in fiction, are just as long as *Tom Jones* or *The Heart of Midlothian*.

Every novelist tries to create a picture of human beings in their relations to one another and their struggle to find a solution to the problems of actual experience. But the method in every case varies with the author's personality and with the purpose he has in mind. Some writers are characteristically satiric, some seek to be objective to the point of becoming photographic, and in the stories of others the characters breathe throughout the atmosphere of adventure and romance. Often, of course, several modes of writing are combined in a

single novel. Often too, the novelist is himself deeply concerned with the questions of human conduct and social relationships which he has presented in his story, and he may even, as we shall see, go so far as to turn his novel into an argument for or against certain political or social changes. But for the most part the novel is concerned with people as individuals.

To read intelligently then, it is necessary to understand clearly the novelist's intention. Unless the reader is fully aware of what the writer of a story is seeking to do, he may easily misinterpret what the writer has said. Any such failure of comprehension is most readily apparent in relation to a book that is satirical in purpose. There is no answer to a guffaw, said Arnold Bennett, but the reader who does not recognize satire will not enjoy the laughter which the author intended.

Sometimes the purpose of a novel is obscured by a writer's style; sometimes, by our lack of knowledge of the period the novelist describes. Unless we are acquainted with the social customs, the prejudices, the political thought, the religious attitude of the day and time in which the novelist wrote, or which he describes, we may miss the point, the wisdom or the irony, of the tale. The effect of certain novels of the past when they were published was very great, but only the reader of the present who knows something of the period when they were produced will understand the way in which they were received. Today it is necessary, for example, to comprehend the significance of the war in the United States between 1861 and 1865 to understand the popularity of the wide range of fiction dealing with that period.

#### READING THE OPENING CHAPTERS

Often there is a difference between one novel and another with respect to the beginning. Many authors—those of today

as well as those of yesterday—like to lay a good foundation for the tale that is to be told. Only by so doing, they feel, can they properly unfold the narrative. Even if the story begins with action, there may be a number of chapters devoted to the introduction of characters and the description of a community and a period. But it is only fair to give the writer a chance to tell us what he has in mind before he really begins the story itself.

Explanations and descriptions of this kind must be given attention, yet if the writer chooses to begin his novel this way, it is only natural for the reader to cover the beginning with some rapidity. It is proper to read rapidly, but it is dangerous to skip anything at all. That which you have omitted may be important. Thackeray may grow tedious when he talks at such length of the ancestry of the Pendennis family and gossips interminably about the history of his characters in the novel *Pendennis*, but it is doubtful if the reader could live so completely in the period described or participate so intimately in the perplexities of Arthur's pursuit of a wife had the author shortened his yarn.

### SOURCES OF INTEREST

Let us assume that any delay incident to the beginning is past and that we are now well into the story. What interests us most? The obvious answer, of course, would be action, what is happening, but for many people a deeper interest lies in the characters. Certainly action in itself will not hold the attention of an intelligent reader very long unless he is concerned as a fellow human being with those taking part in the action. The first thought that comes up in our minds in reading a novel, even if we do not put it consciously into words, is the question: are the characters real; do they act as people would and do act, in circumstances such as the author is describing? And



at the same time we must consider these circumstances in which the characters are placed, for real people tend to lose their reality in situations that are fantastic or implausible.

In the beginning of any novel the author presents to us certain persons who are to a greater or less extent in a state of conflict and tension. As the story progresses, this situation must alter for better or worse. In most novels, as in life, the curve of development is an irregular one, rising and falling as time moves on and events take place. In all narratives that represent more than a very brief period the lives of their characters change and evolve. It is the intent of the author, and very frequently his chief purpose, to reveal this evolution. He achieves this purpose in part by narrative, that is, by telling what happens, by describing successive scenes in which the people of his story take part. Individuals in fiction also reveal themselves by their speech, and the adroit novelist by his use of dialogue will indicate the motives, the inhibitions, and the potentialities of his characters. In particular instances, although this method is not so often employed today as in the past, a novelist will make use of letters and diaries and thus reveal the thoughts and emotions of his characters, and some novelists prefer to address the reader directly, to discuss the people whom they have created in imagination as to their faults and their virtues, the littleness or nobility of their souls.

Certain novel writers of our own time have been largely preoccupied with the development of a single character. Sometimes it would seem to be the author's intention to make the central character of his book symbolic of a group or a class or a social trend or displacement. In other instances the reader would seek in vain for any hint of allegory. Examples of such novels are *Babbitt*, by Sinclair Lewis, *The Constant Nymph*, by Margaret Kennedy, and the *Citadel*, by A. J. Cronin. In stories like these the interest of the reader is focused on the

fortunes of the main character, on the growth and development, the failure or success, of the central figure of the story. But in all novels the revelation of human characters, through a single individual or many, is of primary importance.

It has been indicated that one source of interest beyond the characters or their immediate environment lies in the life of the community of which they form a part or the period that they represent. Historical novels are among the most consistently popular, and novels of colonial America, and indeed of all the periods of our history, are widely read. Dumas and Scott still evoke an enthusiastic response. Moreover, the fact that people will continue to read one novel after another about a certain family or group of people, or successive stories which evolve against the background of a certain locality, shows that the public is concerned with the life as a whole in which the characters of the story have a share. The popularity of the *Forsyte Saga* shows the widespread interest in the history and fate of the Forsytes as a group.

### PROPAGANDA IN FICTION

When reading a novel many people today tend to evaluate it as something different from a piece of literature. They think of it, not as an artistic creation, but as a sociological pamphlet, a statement of some doctrine, a sermon, or a tract. Moreover, certain writers tend to hoodwink susceptible readers by casting a veil of fiction over the uncouth features of a pet theory or popular preachment. The best and truest books are works of fiction, said Stevenson, because they do not constrain us to any dogma and free us from the tyranny of our own egoism.

There is an argument on the other side, and great novelists, notably Dickens, have written extensively of social ills. But Dickens cannot be imitated and perhaps is remembered more for characteristics other than his passion for reform. How



many novels devoted to a "cause" in the past, even the recent past of a few years ago, are read today? Issues change—the questions upon which thousands of people took sides are forgotten—and the crusaders, as well as the wicked and ungodly of our father's day, are enfolded in oblivion. Novels that depend on controversy, rather than the drama of human relationships, hold little of interest when the controversy has ceased.

### QUESTIONS OF RIGHT AND WRONG IN FICTION

The novel, however, is, or ought to be, deeply concerned with questions of human conduct, with matters of right and wrong. The most interesting and most memorable narratives are often those that revolve around ethical problems. The greatest works of fiction, indeed, frequently develop from the transgression of moral law and stir the reader to a consideration of moral values. *Bleak House*, *Adam Bede*, *The Ordeal of Richard Feverel*—sin and its consequences form the very fiber of these dramatic and moving tales. But whether the main issue lies in the resolving of a moral dilemma or not, the behavior of the characters is of paramount importance. Even the story of pure adventure may reveal a conflict between the forces of good and evil. In reading any novel you must seek to answer the question whether you approve the actions of the characters. Ask yourself if you could be interested in a story in which this question did not arise, and consider the matter in relation to all your novel reading.

The serious novelist often devotes himself to emphasizing a moral truth. At times he presents to his reader the triumph of the basic virtues of loyalty and self-sacrifice over the forces of cruelty and cunning. In such novels the character that withstands temptation is rewarded in the end. But often the novelist chooses to show the consequences of sin, and illustrates a

great principle of conduct by painting the degeneration that follows a compromise with wrong-doing. In *Romola*, by George Eliot, the character Tito Melema is false for a moment to the dictates of his conscience and as a result is doomed by his disloyalty to a tragic end. In *Tess of the D'Urbervilles*, by Thomas Hardy, the inexorable logic of events sweeps Tess onward, in spite of all our sympathy, to the grievous conclusion of her life. Yet frequently the novelist reveals in less dramatic ways the truths of life arrived at by experience—that moth and rust corrupt, that material possessions are but poor solace as age triumphs over youth, that selfishness betrays us all and families and friends are separated by greed. Such moral truths are inescapable in the pages of great fiction.

#### THE WRITER AND THE READER

In many novels the point of view or the attitude toward life of the writer is of great importance with respect to the reader's response. Our interest in the creations of Thomas Hardy is dependent to a very considerable extent on Thomas Hardy's view of life. Ask yourself what the author thinks and feels with regard to his characters and the life they represent. Is he a person with whom you like to associate, whose knowledge and opinions you respect? It is the novelist's ability to see more deeply than others into human nature that makes his work important. Out of the trivialities of daily contacts he weaves a tapestry of human relationships that charms you with its color and convinces you with its truth.

#### ELEMENTS OF GREATNESS

In the truly great novel the qualities of human nature are revealed in enduring form. Because of his ability to penetrate the human soul, the writer of such a book is able to show us its most profound secrets. And he discloses them in a dramatic

context that we can never forget. The great novel, moreover, either directly or by implication, is concerned with matters of basic importance in the lives of men; it may be gay, but it is never completely frivolous, and the reader is always aware of the novelist's sympathetic understanding of the life he represents. One writer on this subject contends that the great novel deals with something beyond the destiny of its own characters—an epoch of society, a significant movement in human affairs, an entire social background, and he uses as an example, Tolstoy's *War and Peace*.

The great novelist, moreover, consistently succeeds in making us believe in his illusion, that is, accept without question the validity of the picture he has drawn. The world of fiction has a life of its own, but within that world the words and the actions of its people must put no strain on our willingness to consider them real. The reader does not seek in the pages of a novel a transcript of experience such as he might find in a newspaper or a compilation of historical facts. Yet in fiction, if it absorbs his interest, he does not question the probability of the development of the story in the circumstances which the author has described. Of necessity there is much in the lives of the characters of a novel that the creator of those characters cannot tell us. Years pass and changes occur; many trivial incidents and unimportant hours are unrecorded by the writer of fiction. Out of the days that make up the pattern of the life he is writing about he must select those happenings and those utterances that are significant for his purpose. If he is a great novelist, the reader will believe in the reality of the world he has thus created. There are many ways in which this belief on the part of the reader may be sustained; dialogue, action, description, and the author's own sympathy with his characters and his wit in telling about them combine to enable the reader to live in the novelist's world.

This acceptance by the reader, or as it has been called, suspension of disbelief, is especially important when the characters of a story are moved by deep and powerful feelings; for under the stress of emotions people act in ways that call for all the skill of the novelist if the reader is to continue to accept unfailingly their behavior. The emotional scenes of great literature afford a guide and standard for the reader of fiction that will help him to evaluate the work of a novelist whom he is reading for the first time. Jane Eyre's departure from Thornfield, the last days of Colonel Newcombe, and the soul of a soldier in battle as revealed by Stephen Crane in *The Red Badge of Courage* are examples of the novelist's powerful portrayal of human nature under emotional stress. As a reader of the novel you should seek for elements of greatness and develop a judgment of fiction in reference to them.

In addition to what has been said so far, it is necessary to add that the novelist often gives us a picture of ways of life other than our own, and in this way enriches our sympathies. One reason for the popularity of the historical novel presumably is the desire of people to live for a time in a different age and amid surroundings that they have never known. The charm of far places exerts a powerful claim on the attention of many readers. And even among stories of contemporary life, we like to read about people such as our own lives do not lead us to know. People seek in the pursuits and perplexities of the life of another country or another time a relief from the pressures of their own.

At the same time, true originality in the novel often subsists in the way in which the writer deals with familiar subjects. Dickens showed himself to be an original man, said Chesterton, because he dealt with old and established themes. In reading fiction you should guard yourself against mistaking oddity or eccentricity for genius. The novelist who arouses



our sincerest response frequently finds the stories he tells in the clash of passions and desires that are as old as human society. Love, loyalty, the conflict of man with nature, the lust for power are themes that form the fabric of many of the greatest examples of the story-teller's art. When you read a novel observe carefully the way in which the author presents such aspects of life and compare his achievement with that of the greatest writers of fiction.

In the end we come back to the pleasure of novel reading, of living among stimulating people whom the author has chosen for our company. Various novelists see life in different ways, but no novelist has ever failed to be himself absorbed in the hopes and strivings of mankind. When his interest dies, he will write no more novels. We, the readers, share the novelist's intimate concern with the fascinating, sometimes moving and tragic, spectacle of human affairs. One writer is primarily dramatic, another amusing and satirical, but in the range of the novel there is everything to suit our tastes and moods. If reading a novel is not enjoyable, there is something wrong—with the novel, with you, or perhaps with the circumstances in which you are trying to read. Lay the book down until another time, or seek another novelist who is more congenial in your present mood, or give up reading until distractions of the moment have passed. Heroic, romantic, or droll, life in the pages of a novel is an engrossing pageant, and the purpose of the novelist is to give you pleasure.

#### QUESTIONS AND EXERCISES

1. Select a novel you have read for pleasure and greatly enjoyed, and compare it with a novel you have read for a course in English literature as to characterization, dramatic interest, and the author's ideas concerning people and their lives.
2. Which of all the novels you have read will you remember longest? Why shall you remember it?



3. Who is your favorite novelist? Try to determine why he appeals to you and then consider the matter in relation to your reading of other novelists.
4. Choose a novel you do not like and set down in writing the author's faults as you see them. Ask yourself whether the book was intended for an older reader or one whose circumstances of life are different from your own. Might you enjoy it if you came back to it later on?
5. Why are certain novels still read although they were written many years ago for another generation of readers? What novelist that you have read will be of interest fifty years from now?

## 14 How to Read Plays

A play is a story in concentrated form. It is the practice of certain writers to include extensive and detailed explanations as to the characters and their actions and the arrangement of the stage. But such additions are superimposed upon a play and are not really a part of it.

A play reveals to us certain characters in a relationship to one another which is in process of change. From the outset we begin to be aware of this relationship, which we call a situation, and our interest should increase as the situation develops. The point is that, as in the novel, the positions in which the important characters stand must become better or worse. According to the traditional definition, if the main character is successful, the play is a comedy; if the main character is unsuccessful, it is tragedy.

### TRY TO DISCOVER THE THEME

Every tragic play and many comedies suggest certain conclusions as to the great problems of life—a man's duty to his country, the relations of men and women, disloyalty and ingratitude. The implications in the words and the fate of the characters of a drama are manifold and depend, of course, somewhat upon your own imagination and experience; what you bring to a play is the measure of what you find in it. Yet the theme of a play may be simply defined as the inescapable conclusion to which it points, and may be suggested in a word

or phrase. Thus the theme of *Macbeth* may be said to be ambition and its consequence; the theme of *Othello* is jealousy, and, to take a modern play, the theme of *The Little Foxes* is selfish greed.

At the end of the first act, presumably certain questions will occupy your mind, and it has been said that the first act of a play should itself ask a question. This question will probably have to do with human nature in general or the condition of life indicated on the stage by the characters. When you have finished reading the first act, it is well to pause and ask yourself what questions the author had in mind.

### THE PLAY PERFORMED AND THE PLAY READ

The pleasure of seeing a play on the boards and the pleasure of reading it at home are two different, yet frequently supplementary, experiences. After seeing a play you will often take pleasure in reading it; in reading dialogue that you found amusing or in going over parts that did not seem clear or that you would like to think about. It is also a pleasure to see a play that one has read, to note the way particular lines come out in the dialogue of the production and to observe the manner of interpretation of certain of the characters.

### Limitations in the Play Read

A play is a play, written to be acted, and when we read it we must do for ourselves what the stage actually does for us. We must take into account the conditions under which plays are presented on the stage and the rigid conventions that govern such presentation. It is true that certain plays are written to be read rather than to be produced. But they are historical or philosophical pieces dealing with subjects which the author thought could best be handled in the dramatic form. Even in such instances, though actual production in a theatre

might be difficult, the dramatic form suggests certain aspects of theatrical representation. An example would be *The Dynasts* of Thomas Hardy. Sometimes with dramas of this sort theatrical presentation is possible. *Mourning Becomes Electra* by Eugene O'Neill and the revival of classical Greek drama, for example *Lysistrata*, show the readiness of the modern theatre to experiment.

When we go to the theatre, understanding is made easy by the actors: by tone of voice, by gesture, by stage business we very quickly comprehend the direction that a play is taking. It is the purpose of the dialogue to reveal this direction or flow of the action, and the dialogue is made unmistakable by the actors. When we have to depend on ourselves to derive from the dialogue alone, through reading, the dramatic movement of a play, we may find it a little difficult at first; we must at the same time become acquainted with the characters and the situation in which they find themselves. It is a good plan to read the first act rapidly, and to read it twice if necessary, in order to become properly acquainted with the characters and to see clearly what is going on.

The following method of procedure will be of help to the reader:

1. Learn to pronounce the names of the characters.
2. Make a diagram or schematic representation of the plot.
3. Get time, place and action clearly in mind in reference to any such designation as

Act I Scene 1

Time

Place

Characters

4. Read the stage directions if they help you to visualize the scene; if they do not, skip them, at least for the time being.
5. Define for yourself the background—the social, political, historical setting.
6. Formulate the author's theme or dominant idea.

### Opportunities in the Play Read

In one respect the reader of a play has an advantage over the observer in the theatre, for he is less apt to be misled by drama that is artificial and manufactured for the occasion. When we see a play produced, the pressures upon our emotions are such as to anesthetize our judgment. If the action be dramatic enough, and this in reality may mean merely sensational, we are prone to accept it when we are under the spell of the voices, the movements, the effects of the professional stage. Our emotions may be stirred when we read a play, it is true; indeed, such a reaction is inevitable for anyone who is alert and imaginative; but we are not so apt to be duped. It is a good plan for the reader to ask himself whether that which he is reading is the result of a situation truly representative of human relations, or whether the situation was created by the dramatist entirely for theatrical purposes. In the former case a play would command one's respect; in the latter, no matter how clever the dialogue or how adroit the business, it would never be wholly convincing. Plays of the latter type are frequently very popular; *Arsenic and Old Lace*, for instance, entertained large numbers of people. But merely popular entertainment is soon forgotten.

There is likewise another respect in which the reader of a play has an obvious advantage; he is limited only by the frontiers of his own imagination. Even the theatrical producer at times realizes that no scene, no landscape or interior, no matter how skilful the carpentry and lighting may be, can ever rival that which the imagination of the observer can create. The production of *Our Town* with no scenery and almost no stage properties is a clear recognition of this. In reading a play you, yourself, can supply far better than any producer, a scene suitable for what the author is imagining. As you read a play



you transform your surroundings into the perfect setting for the drama unfolding in the pages before you. In the theatre you are at the mercy of the stage designer, the scene painter, and the electrician. Sometimes producers minimize staging, to permit each individual to create his own setting.

In enjoying the theatre you are limited to what is being produced at the time when you have the opportunity to go. Unless you live in one of certain large cities or pay frequent visits to one, you cannot exercise much choice in the matter. A good many plays are reproduced by way of the motion pictures, but the motion picture is a different medium from the stage, with its own limitations as well as its own advantages. We are not concerned here with the relative merits of the stage and screen. The reading of plays, however, is limited only by one's own interest. If you have heard about a play that you were unable to see, you often can, with a little effort, obtain it in published form and read it at your leisure. Such books as the following suggest that which is most interesting in dramatic production:

*The Play's the Thing; Enjoying the Plays of Today*, by Joseph Mersand (New York: The Modern Chapbooks, 1941).

S. R. O., the most successful plays in the history of the American stage, compiled by Bennett Cerf and Van H. Cartmell; introduction by John Chapman (New York: Doubleday, Doran and Company, Inc., 1944).

The hits of a season or two ago are thus accessible to almost any one, as well as older plays which have delighted theatre-goers in the past. The dramas of Galsworthy, of Shaw, of the Irish dramatists, and those of the French and Russian theatre in translation are easily procured, together with recent productions such as *The Watch on the Rhine* and the plays of William Saroyan. It is well worth while to make them a part of your own library, but if to do so is impracticable, the public

libraries and that of your own university presumably will have them.

### PLAYS OF THE PRESENT AND THE PAST

A modern realistic play representing life as we know it, in experience, in the newspapers, in the various contacts of normal activity, offers little difficulty when we sit down to read it. We can easily picture the dress of the characters, their speech is the speech we hear every day, and their difficulties are those which we and our friends sometimes get into and sometimes narrowly avoid. Such plays as *The Philadelphia Story* or *Holiday*, by Philip Barry or *Dinner at Eight*, by Edna Ferber and George S. Kaufman, require little effort on our part in picturing the characters and comprehending their problems. Plays that deal with periods other than our own are a little harder at first, perhaps because of some changes in speech, perhaps because of different customs and conventions governing the lives of the characters. Likewise, a play originally written in another language or one revealing the folk of another country puts a greater strain on one's imagination, but does not interpose any serious barriers unless one tries to read it when he should be in bed. It is probable, too, that the translator or the editor or the author himself has prefaced the play with a word of explanation which will bring the characters and the reader closer together. Surely no one with any imagination at all would find it hard to read *Cyrano de Bergerac* or *A Doll's House*.

### THE READER'S CONTRIBUTION

The reader must be willing to contribute whatever energy is required; that is, he must be willing to use his own imagination in order to understand the author's intention. In some plays this is easily understood on the first, and perhaps rapid,

reading. In other cases it is necessary to reread and reflect upon what the author of the play has said. You must always remember that the theatre is made possible only through the observance of certain conventions; when you see a room with four walls on the stage, it must of necessity have only three sides. So it is quite permissible for the writer of a play to choose a poetic medium for the dialogue even though this does not correspond with our everyday definition of natural speech. Perhaps the poetic medium is in accordance with the author's intention and his own conception of the relations between the characters.

Suppose you select a play of Shakespeare's which you haven't read and read it through as an interesting story, trying to supply what the actors would give you by the exercise of your own imagination. Is it so difficult to think that you are in the theatre and the voices of the characters are actually heard? Or select a modern poetic play such as *Paolo and Francesca*, by Stephen Philips, or *The Land of Heart's Desire*, by William Butler Yeats, and consider the effectiveness of the poetic medium in relation to the dramatic movement of the play.

### DRAMATIC HEIGHTS

Great plays develop to the presentation of unforgettable moments in the lives of certain characters. These moments are heightened in dramatic intensity and made memorable by the words which the characters speak. So impressive are certain speeches of certain characters that they are generally recognized, like passages in the Bible, by many who have never read the plays in which they are to be found. Hamlet's soliloquy and Macbeth's foreboding are part of our common idiom. Such speeches often extend their meaning beyond the limits of the plays in which they occur, and indeed beyond the limits

of any play, for they represent a code of thought, a philosophical attitude, a poetic evaluation that relates to life as a whole, not only to life as it is compressed within the boundaries of a specific drama. Sometimes familiar passages are humorous or whimsical—the Queen Mab speech in *Romeo and Juliet*, or parts of *A Midsummer Night's Dream* or *The School for Scandal*, or, to choose a recent illustration, *You Can't Take It With You*, by George S. Kaufman. Sometimes they are poetic and dramatic in a fashion that makes them a part of our own emotional life. Among Shakespeare's contemporaries, for example, we come upon such a line as,

Cover her face; mine eyes dazzle; she died young,

and we find the modern Irish dramatist J. M. Synge writing in the *Riders to the Sea*,

For no man can be living forever and we must be satisfied.

The reader of a play has one obvious advantage; he can go back and reread lines that arrest his attention and challenge his interest.

### COMPARISON WITH THE NOVEL

Like the reader of the novel, the reader of the play will ask himself whether the characters and their relations with one another are in accordance with his knowledge of life. The experience of the student in college is limited, but he will and should seek to estimate literature just as the more mature might do, that is, by reference to what he knows and feels about people and the way they behave. There is no need to feel apologetic because of inexperience. One of the purposes of a college education is to develop the ability to reach a sound judgment. An evaluation of the characters in plays of the past and present contributes to this end.

The reading of literature has the qualities of both cause and effect. If a play or a novel is a sincere presentation, if it reveals truth, it achieves power and exerts an influence; but its power and influence will be conditioned by the reader's attitude, by that which he brings to the meeting of the author's mind with his own. Unless he perceives the truth about life when the writer has indicated it, unless he is capable of interpreting that which he is reading, unless he, himself, brings to his reading insight and sympathy, he will understand only a part of what the writer has to say.

A novel has sometimes been called a lazy man's play. We may not be willing, if we like to read novels, to accept the implication, but it is obvious that the novelist can include much that the writer of a play can only suggest, for the range of the novel is plainly wider. In each case, however, the writer seeks to create an illusion of reality. We must believe in what we are given, in either the novel or the play, about people and what they do. Or if we do not really believe, we must, as has been said, suspend our disbelief.

The reading of dramatic literature is a special pleasure, and through it you may become familiar with the theatre and the best that is being produced. The thought of your own time and the past which has been distilled in dramatic form and the enduring creations of character on the stage, are not separated from you by limitations of time and space if you are willing to put forth a little effort. The reading of a play requires but a little time; it extends to you a cultural opportunity and offers you a unique enjoyment.

#### QUESTIONS AND EXERCISES

1. Read three or four modern plays and then decide which one you would most like to see on the stage.
2. Compare a character in a play with a character in a novel. Which is more clearly and vividly presented?



3. Why must an actor pay the most careful attention to his dress and all of his movements as well as to his speech on the stage? In reading a play can you "see" such details?
4. Select a scene from a play that has greatly impressed you and try to picture the gestures, entrances and exits, the stage activity that would characterize its production in the theatre.
5. Try to formulate in a sentence the theme of a play you have read.
6. Why is Shakespeare a popular playwright today?

## 15 How to Read Poetry

The reading of poetry should be one of the greatest of pleasures; in reality for the student it is often the greatest of bores. This unfortunate fact is due in part to the student's failure to understand what the poet desires to tell him, that is, to his failure to appreciate the poet's aim and purpose. It is also due at times to the unusual vocabulary and the arrangement of words demanded by the meter and the rhyme. The latter difficulty, however, readily disappears with careful and concentrated reading. The student who cultivates some familiarity with the poet's way of expressing himself will have little trouble of this kind. Moreover, the greatest poetry is often very simple and direct. The reader who wishes to enjoy poetic literature should in the first place try to find out more about it. He should return and reread, and seek to comprehend the poet's utterance in the various forms of poetic expression. Lovers of music are never content with hearing a symphony once; on the contrary, they demand to hear it again and again. In the related art of poetry one must read and reread poetic literature to understand and enjoy it.

### KINDS OF POETRY

There are three general types or kinds of poetry: the *narrative*, the *dramatic*, and the *lyric*. *Narrative* poetry includes the epic, a long poem dealing with heroic exploits, perhaps with some relation to history, for example the *Iliad*, or the

*Æneid*; the story in verse, such as those of Sir Walter Scott—*Marmion*, *The Lady of the Lake*, and so forth—or in our own day “The Highwayman,” by Alfred Noyes, or “The Widow in the Bye Street,” by John Masefield; and the ballad, a dramatic story simply told, generally in four-line stanzas, such as the stories of Robin Hood. Originally the ballads may have been sung; the form in which they have come down to us is the English of an early and primitive time. Many modern poets have imitated the old ballads in telling stories or have copied their characteristics. These stanzas from “Helen of Kirconnell” show the movement of these folk tales:

O, Helen fair, beyond compare!  
I'll make a garland of thy hair,  
Shall bind my heart for evermair,  
Until the day I die.

O that I were where Helen lies!  
Night and day on me she cries;  
Out of my bed she bids me rise,  
Says, “Haste, and come to me!”

O Helen fair! O Helen chaste!  
If I were with thee, I were blest,  
Where thou lies low, and takes thy rest,  
On fair Kirconnell Lee.

*Dramatic* poetry is, for the most part, in the form of complete plays, or scenes from plays that exist in their entirety only in the poet's mind. But sometimes a poem consisting of the words of an imagined character may be highly dramatic in content; this is known as a dramatic lyric.

The third kind of poetry is the purest form and is known simply as the *lyric*. As the name implies, this suggests a song and many such poems have been set to music. But it is a mistake to assume that every lyric can be sung, or even that a musical accompaniment in every instance would be appro-

priate. The music of poetry is the music of the spoken word, not the music of the octave or conventional harmonic interval. The lyric is the perfect and complete expression in harmonious words of the poet's feeling at a certain moment of his existence. It records sentiments originating in love, friendship, patriotism, delight in nature, the worship of God.

### WHAT TO LOOK FOR

In the lyric other than the dramatic lyric, the poet is not seeking to tell a story; and if a story is suggested, as in some of Wordsworth's familiar poems, it is unimportant except as a means for expressing the poet's state of mind and feeling. But in many narrative and dramatic poems, and in many poetic plays, the lyric finds a part, either as a song introduced by one of the characters, as Shakespeare's songs are introduced, or in the fabric of the narrative itself, in a passage perhaps of description or reflective art.

The lyric itself is devoted to creating a picture or expressing feeling under certain indicated circumstances or both. Frequently the descriptive elements in the lyric are there only as aspects of the larger purpose of the poet's thought. In order to read lyric poetry with pleasure one must understand both the thought and the feeling expressed. That is, he must create in himself sympathy with the poet's thought at all times. Thus after reading the preceding lines of the stanza the reader may feel for a moment with Omar Khayyam that

wilderness were paradise enow,

even though he is not prepared to defend that belief in its entirety. The point is that the feelings expressed and the conclusions implied in lyric poetry are those universally known at certain moments in the course of human experience. The

student should seek out for himself that which is universal in the poetry he reads.

### WHAT NOT TO LOOK FOR

Many people fail to understand lyric poetry because they are looking for something that is not there. When they do not find it, they are bewildered and at a loss. They have not understood the poet's purpose and did not comprehend at all what he had to say. Some readers feel that certain famous writings, "The Song of Solomon" for example, have been misunderstood in this way. People unaware of what poetry really is, turn to the lyric for advice, for information, for moral reassurance. But they are looking in the wrong place. The poet is concerned only with the conclusions born of his own emotions and is searching for the perfect form in which to record his pain or ecstasy. In reading poetry, therefore, do not ask the poet to solve your problems or to give you either information or advice as to the moral questions which all of us must face. Although he was thinking of something else, Meredith expressed this warning when he wrote,<sup>1</sup>

Ah, what a dusty answer gets the soul  
When hot for certainties in this our life!

Take a simple lyric, one of Wordsworth's or A. E. Housman's, for example, and try to understand what the poet was feeling when he wrote the poem. If you fully enter into the poet's mind, his feeling will become your own.

### MATERIALS OF POETRY

The poet like the painter or the musician or the architect must work with certain materials. It does not help us to know what these materials are if we indicate them merely by saying

<sup>1</sup> George Meredith, "Modern Love."



that the poet works with words. The materials of poetry may be suggested under the following headings:

Descriptive language  
Comparisons—similes and metaphors  
Meter  
Rhythm  
Rhyme

The poet is seeking to record experience and therefore he characteristically uses words and combinations of words that enable us to see, hear, feel that which he has seen, heard, and felt. Homer's "wine dark sea" no doubt relates to the atmosphere and climate that characterize the Greek islands, and the Avernus of Virgil—in ancient poetry the entry to the infernal regions—is actually a lake near Naples in the crater of an extinct volcano. Many famous lines are marked by compelling figures of speech. We are not likely to forget the question Shakespeare asks in these words:

Shall I compare thee to a summer's day?  
Thou art more lovely and more temperate: <sup>1</sup>

or his statement,

We are such stuff  
As dreams are made on, and our little life  
Is rounded with a sleep. <sup>2</sup>

Sometimes such a comparison is very simple. Everyone agrees that a rose is one of the loveliest aspects of nature. When Robert Burns says,

O my Luve's like a red, red rose <sup>3</sup>

the statement is so direct, so perfect, so complete that it can never be forgotten.

<sup>1</sup> *Sonnet XVIII.*

<sup>2</sup> *The Tempest*, Act IV, scene 1.

<sup>3</sup> "A Red, Red Rose."

Much modern poetry is irregular in form; yet however unconventional the form of a poem may appear, a certain meter or beat is discernible, and, moreover, we are not concerned here with experiments in poetic expression but with what is generally accepted. Meter in English consists then of a regular succession of accented syllables with one or two unaccented syllables between two that are accented.<sup>1</sup> Rhythm is to a certain extent the resultant of meter. But it is created not only by the metrical arrangement of words but also by the qualities of pronunciation and meaning of the words themselves. The rhythm of a passage is determined not only by the meter but by the meaning the poet is seeking to convey.

It is natural for many people to associate poetry with rhyme, and it is true that most English poetry, except that kind for which blank verse is particularly appropriate, such as the play or the epic, displays rhyme as one of its characteristics. Moreover, certain standardized forms, the sonnet for example, employ rhyme as an integral feature. We may leave it at this—rhyme is one of the poet's materials: he uses it when it is a part of the perfect expression he is seeking.

### THE PART OF POETRY IN LIFE

It is not unnatural for the busy student to ask himself, "Except for passing this English course why should I read poetry at all?" There is no routine answer to this question. Any satisfactory answer must arise in the individual's own experience. Perhaps the difficulty lies primarily in the question and one might say, "If you merely read poetry, you will never understand and enjoy it." Poetry should enter into one's life; it should illuminate experience and beautify thought. It should

<sup>1</sup> This statement is necessarily incomplete and the student would do well to consult one of the numerous brief books that deal adequately with the matter, such as *English Verse*, by Raymond Macdonald Alden (New York: Henry Holt and Company, Inc., 1903).

be a part of one's self, developed out of the correspondence between the poet's feeling and one's own. When we think that life cannot last forever, that friendship is noble and worthy of sacrifice, that love is beautiful, that often nature seems to rest at the end of day, we are thinking thoughts the poets have expressed in a way we should be incapable of ourselves.

### ADVICE TO THE READER

Take certain well-known lines or passages of poetry and try to apply each of them to yourself; then read them aloud with the thought of the relation to yourself in mind. Even a fantastic poem like "The Raven" suggests certain features of general experience in these lines:

Desolate yet all undaunted, on this desert land  
enchanted—  
On this home by Horror haunted—tell me  
truly, I implore:  
Is there—*is* there balm in Gilead?—tell  
me—tell me, I implore!

And surely you do not need to have lived very long to understand sympathetically the emotion Tennyson was revealing when he wrote: <sup>1</sup>

O that 'twere possible  
After long grief and pain  
To find the arms of my true love  
Round me once again!

It may be necessary for you to use your imagination to some extent, because the poet perhaps is speaking about a time of life other than your own. Youth must project itself in thought into a later period of life to comprehend fully the

<sup>1</sup> Alfred Lord Tennyson, "Maud," Part II, 4.

meaning of Alexander Pope when he wrote these lines in his "Elegy to the Memory of an Unfortunate Lady":

So peaceful rests, without a stone, a name,  
What once had beauty, titles, wealth, and fame.  
How loved, how honoured once, avails thee not,  
To whom related, or by whom begot;  
A heap of dust alone remains of thee;  
'Tis all thou are, and all the proud shall be!

But anyone can readily perceive the connection with his own experience of such familiar passages as:

The world is too much with us; late and soon,  
Getting and spending, we lay waste our powers: <sup>1</sup>

Thou wast that all to me, love,  
For which my soul did pine,—  
A green isle in the sea, love,  
A fountain and a shrine,<sup>2</sup>

Our sincerest laughter  
With some pain is fraught.<sup>3</sup>

A thing of beauty is a joy forever.<sup>4</sup>

The enduring lines of poetry keep coming back to our minds because they say for us what we could never say.

### QUESTIONS AND EXERCISES

1. Select poems in an anthology at random. Can you classify them in terms of lyric, narrative, or dramatic poetry?
2. Can you define blank verse, free verse, iambic pentameter, the sonnet, and the ode?
3. What is the difference between prose and unrhymed verse?
4. Can you name five of the better known American poets living today?
5. How do meter and rhythm differ? Can you define each?

<sup>1</sup> William Wordsworth, "The World Is Too Much with Us."

<sup>2</sup> Edgar Allan Poe, "To One in Paradise."

<sup>3</sup> Percy Bysshe Shelley, "To a Skylark."

<sup>4</sup> John Keats, *Endymion*, Book I.

6. Why are the great poems of any nation timeless no matter when they were written?
7. Choose a poem you like and relate it to your own experience. Why does all great poetry have a personal meaning for the reader?



## 16 How to Read Aloud

To read well aloud is a difficult matter. Yet to be able to do so is a pleasing accomplishment and in certain instances useful. In the interests of comprehension and a proper rapidity in reading, a child is taught not to pronounce words as he reads them but to learn to read entire phrases or a whole line in a glance. This modern reading procedure is desirable and surely one would be greatly handicapped in reading were he to mouth each syllable or say to himself each word. Yet much literature cannot be fully understood unless it is actually heard, or unless the reader has developed the ability to appreciate how it would sound if it were read aloud. Such poems as "Ulalume" by Edgar Allan Poe and "The Barrel-Organ" by Alfred Noyes are designed to appeal to the ear. In reading plays, or indeed any dialogue, one should be so keenly aware of the words as something spoken that he literally "hears" them.

### **READING ALOUD AS A FORM OF ENTERTAINMENT**

In any dramatic writing, then, it is obvious that the author's intention can only be fully realized through the tones and inflections of the voice. Reading in such instances approaches the art of acting and sometimes, as was true of Dickens rendering his own creations, is called dramatic reading. This represents a special talent which in its further development leads

directly to the stage. Most of us are not equipped to be actors; yet something of an actor's ability to understand and communicate the meaning that a playwright intends is a gratification to oneself and a pleasure to others.

Seventy-five or a hundred years ago reading aloud formed a family entertainment. In those days, of course, the mechanical devices which make entertainment at present a matter of mass production did not exist; the radio, the motion picture, the recorder were all developments of the future. Reading aloud in the evenings was a natural procedure, and historians indicate that books were written with a full realization of this fact on the part of the authors, just as today an author is consistently aware of the profits of Hollywood. In both instances literature has been affected. But the influences that restrained our Victorian ancestors may also have helped to make them aware of sound values and sentence rhythm.

#### **PRACTICAL VALUES IN READING ALOUD**

In the ordinary affairs of life it is certainly desirable to be able to read a straightforward exposition or argument in a convincing and persuasive way. Ability of this kind is a practical necessity for salesmen, lawyers, clergymen, and others for whom business or profession demands that they address people either individually or in groups. Voice culture and courses in public speaking help to develop such ability; and it is highly important for the student, or for anyone, to make himself as proficient in speech as possible. Yet courses in voice culture are commonly concerned with phonetics, and courses in public speaking concentrate on the communication of the speaker's own ideas; thus reading aloud, if it is included at all, occupies a very minor place. There does not seem to be proper provision in our educational program for training of this kind, that is, training that would enable the college student to take a

piece of modern prose—a commentary, a literary essay, an informative article—and read it in such a way as to bring out the author's meaning and please the ear of the listener. The student in college can supply this deficiency only by joining with other students to gain some practice in reading aloud.

Let us take a practical instance. Suppose an officer of a corporation has to make a report of his activities and their results at the annual meeting of the stockholders, or suppose a consulting engineer is asked to report on the suitability of a certain site for manufacturing purposes. It would be the desire of the writer of any such report to make it as clear and convincing as possible. In reading it aloud he would therefore punctuate very carefully, emphasize the elements that were most significant, and seek in every sentence and paragraph to stress that which he wished the listener to remember. It is the function of one reading aloud to accent what he deems important, by the rise and fall of his voice, by changes in tone and tempo, by combining words in a certain pattern in such a way as to convey the intention of the author to his audience. If he himself is the author, he knows of course what he wishes to bring out. Otherwise he must make a serious effort to penetrate the writer's mind.

### **READING ALOUD IS AN AID TO LANGUAGE STUDY**

By practice in reading aloud, language becomes an easier tool to handle. The effort to understand an author's intention and then to indicate it by one's own voice makes one conscious of ways in which language can be used and of effects that can be obtained. Alliteration, onomatopoeia, changes in sentence form, the concluding word—all achieve certain additional values through the voice.

An awareness of such details of expression is, moreover, a

safeguard. Through it one is better able to distinguish those aspects of style which are an integral part of a writer's way of saying something from those which are adopted to impress the public. When features of style become important in themselves, a writer is playing tricks, and is not so much intent on what he is saying as on how he is saying it; the discriminating reader may be amused but he doesn't listen with so much attention and respect. Many people tend to think of the characteristics of a writer's style as accessories or decorations which may be added to what he has to say. They think of meaning as something apart from the way it is set forth and fail to realize that the qualities of expression are not mere ornaments but a part of the bone structure of a writer's utterance. Reading aloud makes one conscious of artificialities and insincerity and helps one to distinguish that which is real from that which is imitation.

#### PRACTICE IN READING ALOUD

It is a good idea for a student in college to join with another student or several others to take turns in reading aloud for half an hour or an hour a day. Take a story or an article in a magazine that you have especially liked or something of a modern author about whom you are particularly enthusiastic, and see if you can produce on those listening to you an effect such as that you yourself experienced in reading. You will in all probability find new qualities to admire and perceive values you had not been aware of in reading by yourself. In time you will develop the ability to "listen" to a passage as you read it silently alone. Certainly you may not be aware at every moment that you are "hearing" it, but you will be impressed by the qualities which make a great deal of literature something to be understood fully only in a combination of meaning and sound. The following two paragraphs chosen from the *Satur-*

*day Evening Post* of July 21st, 1945, furnish an illustration of straightforward, informative prose. Try reading them aloud, adjusting your voice and regulating the stress so as to bring out the author's ideas.<sup>1</sup>

Inclusion of medical care in the various relief programs was a boon alike to patients and to physicians hard hit by the depression. In our relief practice, we physicians recognized the necessity of regulations. Each request for a house call was twice screened. When Johnny Parker awoke, fretful and feverish, his mother found his temperature 102 degrees. Mr. Parker trudged the mile and a half to the relief office, to await the nine o'clock opening of its doors. He signed the application for doctor's care. Early in the afternoon the welfare nurse arrived and took Johnny's temperature, then 103 degrees. At the end of the nurse's day, she telephoned me to add Johnny's name to my list of house calls. About eight o'clock I found the parents so frantic with waiting that I had to hear them out before I so much as looked at Johnny.

Thwarted as I felt by the bureaucrats and red tape that had come between me and my patient's need, I have no panacea to suggest as an alternative to these regulations. They seem to go with public medicine. Sometimes it was only delay that thwarted our best efforts for the well-being of our patients. On other occasions, no word of the patient's condition reached our ears. It rankled when non-medical persons passed on what treatment a patient "deserved," rather than what he needed, using moral judgment as the basis of selecting cases for treatment.

In the field of imaginative literature it would be interesting to try reading aloud the following account by Nathaniel Hawthorne of the child in his famous tale *The Scarlet Letter*:

Pearl was a born outcast of the infantile world. An imp of evil, emblem and product of sin, she had no right among christened infants. Nothing was more remarkable than the instinct, as it seemed, with which the child comprehended her loneliness; the destiny that had drawn an inviolable circle round about her; the whole peculiarity, in short, of her position in respect to other

<sup>1</sup> By permission of the Curtis Publishing Company.



children. Never, since her release from prison, had Hester met the public gaze without her. In all her walks about the town, Pearl, too, was there; first as the babe in arms, and afterwards as the little girl, small companion of her mother, holding a forefinger with her whole grasp, and tripping along at the rate of three or four foot-steps to one of Hester's. She saw the children of the settlement, on the grassy margin of the street, or at the domestic thresholds, disporting themselves in such grim fashion as the Puritanic nature would permit; playing at going to church, perchance; or at scourging Quakers; or taking scalps in a sham-fight with the Indians; or scaring one another with freaks of imitative witchcraft. Pearl saw, and gazed intently, but never sought to make acquaintance. If spoken to, she would not speak again. If the children gathered about her, as they sometimes did, Pearl would grow positively terrible in her puny wrath, snatching up stones to fling at them, with shrill, incoherent exclamations, that made her mother tremble because they had so much the sound of a witch's anathemas in some unknown tongue.

#### READING POETRY ALOUD

The value of reading aloud is preëminent with respect to poetry. Poetic literature in the beginning was spoken or chanted or sung before it was thought of as something to be written down. Indeed all language is primarily a vehicle of oral communication. In reading poetry aloud we achieve somewhat its primal purpose: to cast a spell over the reader by means of rhythmic syllables set in a pattern of recurring stresses. In every case it is the purpose of the poet to induce a mood in the listener. Some people ask no more and do not seek to draw from his utterance a specific meaning. Others demand from poetry qualities that appeal to the mind as well as to the emotions; and believe that great poetry not only must possess melody, originality, and intensity, but also must present a rational statement that is worthy of attention. The latter would probably admit that there is a certain quality of magic—a something that casts a spell over you—in great poetic literature, but for them the spell is potent only when the mind

responds. The popularity of Robert Browning was perhaps due in large part to the belief that he had a great many profound things to say. Whatever may be the qualities you admire most in poetry, these qualities will be heightened when a poem is read aloud.

Some poets are themselves effective readers. The late Vachel Lindsay used to chant his verses, and Alfred Noyes brings out the mounting narrative appeal and the lyrical swing of his own verses in reading them aloud. The poet Swinburne said that there is and must always be about great poetry a quality of the inexplicable. Perhaps he was thinking particularly of the sound of poetry, for many of his own verses cannot be appreciated as he intended them to be unless they are read aloud.

For both practical and esthetic reasons the ability to read aloud well is an asset. It is a mark of culture, for it shows that one has given thought to the feelings of others when he uses his voice. A person who is a good reader is a source of pleasure both to himself and his friends; he enjoys exerting an influence over others and they take pleasure in submitting themselves to the charm which he exerts. Reading aloud is a neglected but not a forgotten art and remains an aspect of civilized behavior.

#### QUESTIONS AND EXERCISES

1. Select a passage with long sentences and read it aloud with an effort to bring out the writer's meaning.
2. In reading prose aloud, can you adjust your breathing in accordance with the punctuation and the emphasis the writer intended? Practice breathing at the right places.
3. Find a paragraph that has a number of unfamiliar words. Read it aloud, trying to pronounce these words. Then consult the dictionary and incorporate the words into your speaking vocabulary.
4. Read aloud a short poem and a prose passage of about the same length. Consider the problem of effective reading in each

case. What are the important features of each selection to be stressed in reading?

5. Read something you have written yourself aloud to another person and compare it as to sound with a piece of published prose.
6. Try reading aloud a famous passage from a play.

**PART 3**

**Observing and  
Recording**





## 17 How to Observe

Both the student in college trying to locate an amoeba through a microscope and the man out in life trying to make a living and also to escape death by a taxicab must be good observers. The ability to gather information by looking is a universally valuable skill. Daniel Boone was a skilful observer. He could "smell" Indians simply because he had taught himself to observe the bent twig, to catch the smell of smoke long before his companions. If it is recalled how frequently our friends have to confess "they didn't notice," or "they didn't see," we get a clue to the extent of faulty observation. People have been known to bring home a newly purchased clock, only to discover that it operates on AC current when they have DC current. Witnesses in courts of law are notably inaccurate and conflicting in reporting what they saw, heard, smelled, or tasted. Psychology professors have been known to stage an unexpected, highly dramatic incident in class to provide the students with first-hand data on the high degree of practice necessary to become skilful observers in any field of work or study. It is difficult to suggest specific rules to follow to become an expert observer, for practice is the prime essential. Some suggestions can, however, be given.

### **KNOW WHAT YOU ARE LOOKING FOR**

A large part of Daniel Boone's skill in observation in the woods was no doubt due to the fact that experience had taught

him what to look for. The student at the microscope must know what he wants to find; otherwise he will not know when he has found it. Clear-cut aims or objectives are important in skilful observation, as, indeed, they are in most human activities. The reporter at the launching of a ship looks for certain things of human interest for his story, and if the bottle refuses to break, the reporter has gotten a break. At the same launching, the engineer in charge looks for quite different things than material for human interest stories. The artist at the same launching looks for lines and color and character and drama. To start out on a geology field trip or sociology trip to a factory without first having formulated clear-cut ideas of what you want to investigate is to exhibit poor studentship. The good observer must know what he is looking for.

#### **LOOK FOR THE RIGHT THINGS**

It is not always possible to know exactly what you are looking for, but it is always possible to know the general area of interest. Boone, in hostile Indian country, didn't waste much time in observing interesting geological formations for possible oil deposits. He looked for signs of the number and whereabouts and temper of the hostile Indians, for the safety of his party depended on his skill in observing the right signs. Newspaper reporters and artists, as well as college students, have to learn what the right things are. The lawyer at the scene of an accident will not look for the same points as will the news photographer. The right things to observe grow out of, and are determined by, the reason for looking and the use to which the data will be put.

#### **YOU OBSERVE BEST IN A FAMILIAR AREA**

So much is said about background, the need for background, the value of foundation courses that the student, im-

patient to get at the heart of the subject and to study specific things, is likely to conclude that college is nothing more than getting background. In fact, that conclusion is not too far wrong, for the body of necessary knowledge in every field is so great that much time must be expended in catching up. Thus, of necessity, original creative work in a field of specialization has to be delayed. The growing custom for students of engineering to take four years of general work, then a fifth year of specialization before going out to practice is an example of the necessity for a great deal of preliminary study before marketable skill is acquired.

The artist sees more in a painting than the amateur. The artist is a good artist to the extent to which he sees meaning where the layman sees only a scene or a face. Literature courses are designed in part at least to help students see more in what they read. So acquaintance with the literature of the ages may provide the necessary background for advanced courses in the modern novel.

In the same spirit, the lawyer learns all he can about the case before him so that he may see all the angles. In a case involving a chemical plant, for example, the lawyer may study chemistry as college students should. Getting background for the sake of later skill in observation may seem like a waste of good time. Physics for the future structural engineer may seem to be the long way around, but at least part of the reason is to give a solid foundation of knowledge of stresses and strains and forces to make more expert later professional observation.

The successful story writer must live widely and see deeply. The successful doctor must observe with keen sight the skin condition of the patient but he must also know what the condition means. The more you know, the more you see. To be a skilful observer, the student must soak himself in his area of work so long and so deeply that, like the expert bridge

player who sees the possibilities of a hand without conscious thought, he can detect off-sentences, off-color skin, off-balance construction without even thinking.

### LOOK SYSTEMATICALLY

The monkey will turn over and over the strange object thrown into his cage. He will shake it, listen to see if it rattles, try to taste it, and throw it maybe to see if it will bounce. The monkey is looking systematically. We can take a lesson from our biological cousins and learn to look systematically when faced with a specific task of gathering data from observation. The expert in medicine, because of his rich background of study and experience, gets clues quickly. He is therefore able to make a start at the lungs, the heart, the kidneys, or some other appropriate place. When faced with a specific stubborn case, he proceeds very systematically through the various bodily organs and functions.

So important is this business of looking systematically that the famous Binet intelligence or I.Q. examination contained a test element consisting of a diagram of a field with a high fence. The problem was to tell how you would proceed to look for a ball knocked over the fence, which you did not see go in, but were assured was lying in the tall grass inside the fence. The person who had a system to his covering of the field, was assumed to have higher intelligence.

Commonly, we look outside and then inside, from the top to the bottom, from side to side, from the large parts to the small, from the front to the back. The detective goes over the scene of the crime very systematically, even to analyzing the dust in the footmarks on the floor. This trait or habit of looking systematically or carefully is shown in the approach to the familiar block puzzle. The unintelligent person begins to shove the pieces aimlessly around. The careful student analyzes the

situation, observes that the split pieces are the only ones that can change from long one way to long another, then proceeds to move the piece labeled "piano" to the other corner after several tries. To look systematically at a piece of your own writing is wise and profitable. At one time you may check the spelling, next the grammar, and finally the choice of words and clarity. Whatever the particular system, it pays to observe systematically in every field of study or human endeavor.

### **CHECK YOUR OBSERVATIONS FROM A DIFFERENT ANGLE**

The advantage of writing an assigned theme early, then after it has been out of your mind for some time, going over it for corrections, is that you see errors and points for improvement you would not have noticed earlier. The reason is that your mind-set after the lapse of a few days or longer is different; therefore you observe the paper you have written from a different angle. The painter has the trick of looking in a mirror at the canvas on which he is working. The fact that the mirror reverses the portrait enables him to see it in a new way, and therefore to judge how best to improve it. Again he is improving his observation by looking from a different angle.

You may have had the experience of approaching your hotel in a strange city from a street different from the one you previously used. Perhaps you can recall the mild confusion you felt at first. From a new angle the hotel was different. You cannot, therefore, be said to be familiar with a neighborhood until you are at home approaching it from any side. The first air trip over your home town increased your understanding of its layout considerably—again because it was viewed in a new perspective.

A difficult lesson in a foreign language may be cleared up by consulting another text on the same lesson. The different



wording, the new illustrations, which in themselves may not have been clearer than the first, when combined with the first make the whole idea stand out plainly. The same principle is operating. You understand better because the second book helps you observe details which were escaping your grasp.

### **BEWARE THE NOVEL AND THE STARTLING**

The striking, the bizarre, the unusual, the very colorful, or very smelly are quickly noticed. Advertisers exploit this principle in window displays and on billboards to attract attention to the name of a product. The automobile ad showing one-tenth of the car and nine-tenths of the girl is attracting attention by an almost sure-fire method.

Accurate observation of the structure of a short story may be made difficult by the very strength of its appeal. Many students remember little about the chemistry of hydrogen sulfide except the smell. He who would be an accurate observer must not be misled by the extraneous, or the startling, features of the situation.

### **RECORD OBSERVATIONS SYSTEMATICALLY**

The scientist on an expedition to get where an eclipse of the sun will be maximum takes trucks full of equipment. He plans to get a record of the phenomenon second by second, for his records must be systematic to be a real contribution to scientific knowledge. The value of system is best illustrated in science. The great body of scientific knowledge is available to us today precisely because of scientists' systematic planning and systematic record-keeping—even of failures. Biological experimenters in nutrition, for example, keep a detailed record of every ounce of food the experimental animals eat. In one sense, science is science because it is systematized knowledge.

In other fields the importance of system is not so clearly

illustrated. Home economics as a college specialty comes close to being a science, but sociology, history, education, political "science," and allied subjects have no comparable set of established laws and principles, and no comparable experimental techniques. Writing is systematized to the extent that an outline is a system. But the near true stories of the confusion in newspaper offices negate the need for rigorous system, except as one postulates the thesis that newspapers would be of better quality if there were less heat, less color, and more system.

It may be that there is less demand for systematized record-keeping in the social sciences because these subjects are taught from books rather than from first-hand observation. But when field trips to housing projects, industrial establishments, and other places of social and political interest form part of the work, then the need for a systematic record of conditions observed becomes apparent.

The student who introduces his own system into the observation of basketball games or football games, soon learns the value of systematic records. It is not uncommon for basketball coaches to have assistant managers keep a record of the game's progress, of shots taken and the score of success or failure. By consulting these systematic records, or by carefully analyzing motion picture shots, the coach is better able to improve his team than he would be by reliance on casual memory. The introduction of systematic records in every possible field where observation by seeing, feeling, tasting, smelling, and hearing yields a quantity of data, will improve mastery of that field.

#### **USE THE INSTRUMENTS AVAILABLE AND SUITABLE**

Much of man's creative effort has been devoted to the development and perfecting of instruments to extend and

refine his observational powers. The simple ruler is an instrument which makes more definite our estimate of length. Ever since Leeuwenhoek, men have been at work improving lenses and the microscope, until today the electronic microscope yields magnification of more than 10,000. What is more, it takes pictures of what is seen. It appears that the extension of the human eye as an organ for observation cannot go much further than that. The list of aids to observation is almost without end. The electronic detection of flame and smoke in ship holds is more refined than the sharpest vision or the keenest sense of smell. The X-ray, the telescope, calipers, stethoscope, and a host of other aids to observation are at the command of the physical scientists.

The artistic, literary, and speculative areas of study have no such instruments to aid observation of strength, weakness, quality, or quantity. They do have certain standards and rules of balance, color harmony, proportion, unity, emphasis, logic. When it is recalled that men can honestly argue the merit of a painting or a literary production, and when it is remembered that a man's personal taste is the ultimate standard for him and him alone, it is apparent that objective observation is a long way off.

This statement should not be construed as meaning to reflect discredit on the arts and letters. On the contrary, literature and the humanities mean so much to the enrichment of life partly because each individual has the right to see what he chooses to see, and to attach what value he wishes to what he hears and sees and reads. It would indeed be a step, and a long one, toward a robot world if the same impersonal evaluation which is used commonly in measuring the size of stars or the amount of protein in a slice of bread, were also applicable to the judgment of the worth of a poem.

What is meant by the suggestion to use all possible instru-

mental aids to gather data by observation is to use them to the full in the scientific realm, whereas in other areas of study it is wise to know well the widely accepted standards of worth but to reserve personal judgment. The trained, experienced mind in the theater becomes in a sense a reliable instrument for observing dramatic worth and box office value. In a democracy we still have a right to say the play is bad, and no one can successfully contend that to us it isn't.

### QUESTIONS AND EXERCISES

1. Remember the blind men who met the elephant? Remember how their conclusions differed? What rules of observation are illustrated in this story?
2. Of the courses you are now studying, which calls for most accurate observation? Why?
3. Where in life outside the college does the average citizen gather information by using his sense of smell?
4. Can skill in gathering information by smelling be improved? By tasting? By feeling?
5. What would each of the following persons look for at a football game? A scout from a rival college? The mother of the full back? The trainer? The head cheer leader? A newspaper reporter?
6. Assume you have invited a major in sociology, a major in abnormal psychology, a professor of hotel management, your mother, and a feature writer for the Sunday magazine supplement to your room. What would each "see"? Can you use this exercise as a series of theme topics?

## 18 How to Listen

One of the most important activities of the student in college is listening. In the classroom obviously he is compelled to listen, sometimes both to the instructor and his fellow-students, and his success in a given course may be in proportion to the skill he develops. As a matter of fact, a large part of the ordinary person's day is devoted to listening to other people. The college student has the opportunity, and often is required, to listen to formal lectures on science, history, finance, and the political problems of the past and present. It is plainly necessary that he develop the ability to select and retain that which is important in what he hears.

### LISTENING IN THE CLASSROOM

Woodrow Wilson, reflecting on his teaching experience, remarked that the student forgot his instruction and remembered only his jokes. Certain students in the classroom listen to nothing at all until the shuffling of feet indicates that the class is over. Their minds are wandering afar, or they are quite unmistakably asleep. Certain others have come to be entertained, and listen only to what they consider sufficiently amusing. The majority, of course, try to listen intelligently, but do not succeed all of the time. The successful listener continues to concentrate on what is being told to him. The mind naturally wanders—the check that didn't come, next Friday's date, a job for vacation, the letter that isn't written—you find



yourself thinking of these things and not of what the instructor is saying. The good listener is always alert to keep his mind from such meandering.

To keep his mind on what an instructor is saying generally requires considerable effort on the part of the student. The subject may be difficult, and it is also true that the instructor with his fund of special knowledge may make little allowance for the student's ignorance. He will, however, probably repeat, or emphasize in other ways, that which it is most important to remember. The student who is a good listener will recognize any such emphasis and give the point the proper position in his notes. But unless you are following carefully the pattern of the instructor's discourse, you will not be aware of the emphasis he gives to any particular part or feature of the subject.

### **LISTENING TO SPECIAL LECTURES**

Listening would seem at first to be something merely passive. In reality it should be active and dynamic. The student must learn to bring his own intelligence to bear upon what he is told; develop a facility in noting what is fundamental and putting it in its proper place in relation to his activities and pursuits. For several years one university has followed the practice of bringing to its campus eminent speakers to discuss important questions of the day. Each naturally represents his own experience and attitude, and if a student merely listened passively, he would soon be lost in a confusion of statements and conclusions which would have little meaning or purpose. One speaker, for example, might be an enthusiastic exponent of government planning and industrial control. Another might be equally positive that the less the government interferes with individual enterprise and competition in industry the better. Any lecture or discussion is valuable only if you are able to

determine that which is important for you and can keep this for future reference.

In many instances it must be admitted the listener is largely at the speaker's mercy. If the subject is in any way technical or if the discussion presents special information, the result of years of study and experience in a certain field, the listener who is not technically educated or a specialist in the same field has no way of checking the validity of the speaker's statements. He will be better equipped, however, to arrive at an intelligent opinion if he has a clear memory of what he has previously heard on the same topic or matters related to it. If a well-known geographer were speaking of the industrial resources of central China, a student could better evaluate the speaker's statements if he were able to recall what he had previously heard about China and Chinese life. A lecture on unemployment has a special meaning for the student who has worked before going to college and who perhaps has had to look hard for a job. What you take away after hearing a speech or lecture is determined in part by what you bring to listening to it.

### **MAKE YOUR MIND A NOTEBOOK**

In order to make your mind a notebook it is necessary to keep notes. Only the person with a phenomenal memory can retain what he hears from one day to the next. A few things may stick in one's mind, but these are not necessarily important, and frequently turn out to be just the reverse. The practical solution to the problem of listening is to carry a notebook. In the section on notes and note taking (chapters 19 and 20), there is specific advice as to the most serviceable notebook and the way to use it. In addition to his regular notebook, however, the student will find it practical to carry in his pocket a small blank book in which to jot down some things he may hear—a new idea he will want to think about later, or

some news connected with a certain subject or an activity in which he is engaged. In going over these jottings, as in studying the notes for a particular course, you should arrange them in your mind and fit them into an orderly pattern of information and ideas. In the end your mind is your best notebook, but it will become so only if you keep a record of what you want to use.

Suppose you hear, for example, that a new course is to be given during the next academic year. This will affect your roster in the future, but unless you make a note of it, you probably will not remember when the time comes to arrange your schedule for another term. You may hear that a senior thesis will be required by the time you reach the graduating class. This certainly is a matter to claim your attention, for you ought to begin work on any such requirement long ahead of time, but again if you fail to make a note of it, you may easily forget it tomorrow. Or you may hear news of a different kind. Perhaps a play or motion picture that you very much want to see is coming shortly, or a part-time job has just become available. It is worth while to listen carefully to any such information; it is also imperative that you remember it.

### **LISTENING TO THE RADIO**

All students listen to the radio. With many this is a casual and sometimes a semi-conscious procedure. When the radio is turned on all the time, you do not even know that you are hearing it. Much is being written today about the value, or lack of value, of radio programs in this country. But nobody denies the importance of broadcasting as a means of conveying news or disseminating information. For many, the radio furnishes entertainment of a somewhat dubious kind, but its most severe critic would not think of doubting its power to influence the thought of the listener. In the United States

there are millions of family radio sets, and no intelligent student can afford not to give serious attention to an agency with such tremendous power for good or evil influence on political and social development.

To listen to the radio purely for entertainment is presumably neither more nor less worth while than to seek relaxation in some other form, and certain programs offer some of the best in music. A student has an opportunity here to broaden his musical knowledge with little effort and practically no expense. To listen to the radio without discrimination, however, is to accept as of equal value all the various dramas, dialogues, moth-eaten jokes, popular and classical music, and informed, and sometimes expert, discussion which pour from it twenty-four hours a day.

The radio in certain aspects is an extension of the theater, without the traditions or the literature that distinguish the stage, and in the United States its programs are dominated by advertising. In addition, news presentation, news analysis, and commentary on the news, as well as dramatic and musical entertainment, are chosen by the advertiser as a means of focusing public attention on what he has to sell.<sup>1</sup> Certain programs, however, challenge the attention of the most thoughtful, and also the radio has become a vehicle for carrying official information and opinion to the public.

Not a few people have made use of the word *educational* in one connection or another with reference to the radio, but every listener should pause when he sees this word in print, for it is often very loosely employed. Yet certain colleges, the University of Chicago and the University of Pennsylvania for example, broadcast round-table discussions by members of

<sup>1</sup> In the *Atlantic Monthly* of June, July, and August, 1945, in a discussion entitled, "Hearing Is Believing," by Dixon Wecter, this whole matter is considered with great thoroughness.



their faculties and others specially informed on matters of moment to the general public. Sometimes such programs consider the most pressing problems of the day. A good plan for the student is to keep a record of his radio listening for a week, with brief comments of his own, according to a schedule of his own devising. A brief notation as to the substance and value of everything heard would thus enable one to see how much of his time the radio had claimed and what he, himself, had gained.

### **LISTENING TO RECORDINGS**

The average student cannot afford a large library of musical records, either classical or popular. But even if one has only a small collection of his own, or none at all, one is not deprived of the opportunity of listening to the best recordings. In libraries and elsewhere without expense you may hear the music of Beethoven, Schubert, Tschaiakowsky and other famous composers. Many students would find the collecting of records a hobby which would afford them pleasure both in undergraduate days and afterward. A turntable with an electric amplifier is not very expensive, and a student who possesses one can begin to assemble the records to which he most enjoys listening. The pleasure of hearing a musical composition increases as one's knowledge widens. Good recordings do not constitute an expenditure for a temporary pleasure that is quickly over; they remain a part of your cultural experience indefinitely.

Recordings also play a practical part in the college student's program. In the past few years a number of universities have been building up speech departments which make extensive use of recording apparatus for the improvement and control of the voice. Such departments, moreover, are creating large libraries of recorded speech which are invaluable for detailed



study. The voices of such speakers as Franklin D. Roosevelt, Wendell Willkie, Winston Churchill, and many others may be heard in such collections. If a student learns how to listen to a speech recording, he will find it of vast help in the study of general phonetics and likewise in the practical process of improving the use of his own voice. It goes without saying that listening of this kind is something of an expert matter and requires special training.

The use of recordings in language study is constantly becoming greater. This fact stresses the point that in language study the ear is more important than the eye. The simplest way to learn a spoken language is the way of nature, that is, through the ear. It is obvious that learning a language by this method involves a great deal of careful listening. The student who is able to remember new sounds and can recognize those which are identical with sounds in his own language, even though the spelling is very different, or who can distinguish sharply sounds which are alike but not identical, will enjoy a very great advantage. Listening of this kind involves to some degree a natural talent or aptitude, but a student's development is greatly dependent on the skill with which he listens.

Whether he listens for cultural or practical reasons, the problem of intelligent listening deserves the serious attention of the college student. If he gives no thought to the matter, he will find at the end of the week, or a month, or a college term, that many hours will have gone and left no trace—lost in the welter of daily experience. But anyone who brings his mind to bear on the problem of listening to conversation, the radio, lectures, music, the voices of friends and passing acquaintances, in the classroom and out of it, will acquire from the listening he engages in an increasing return of pleasure and profit.

## QUESTIONS AND EXERCISES

1. Try out your ear in the study of a foreign language by seeking to identify sounds that are familiar in English.
2. Do you find that you listen most carefully in those classes you enjoy?
3. Does the taking of notes impair your ability to listen well?
4. Do you listen best to facts or to ideas?
5. Can you readily distinguish in listening those passages which deserve and receive emphasis?

## 19 How to Keep a Notebook

The notebook is the badge of the student, the engineer and the explorer. The medical student takes one to the operating amphitheatre. The girl in the foods laboratory has her notebook along. The sociology student takes his to lectures and on field trips. Notebooks have gone to the poles. The test pilot now has a mechanical substitute for the notebook which was formerly strapped to his knee. This substitute is the wire recorder. The fact that notes are made on test flights and bombing missions indicates the very important place the notebook plays in the life of all students. In this section we shall consider some points which will be of value to the student in the mechanics of keeping notebooks, for the good notebook is the most valuable single thing in the student's possession.

### **ADOPT A STANDARD LOOSE-LEAF NOTEBOOK**

You might well invest in a leather-covered loose-leaf, two hole or three hole standard  $8\frac{1}{2} \times 11$  notebook. These can be purchased at a price from \$3.00 to \$23.00, depending on the quality of the leather cover and of the zipper. Such notebooks open from the right like a regular book. They are well made and roomy. This is the notebook which will be the student's constant companion, to all classes, to the library, and to the laboratory. Some have trick levers to open the rings; others have special patented features; but the basic design is the same. The advantage of the zipper cover is, of course, that notes are

protected from the rain and from getting muddy or torn when the notebook falls out of the bicycle basket, or is used as a pillow while watching football practice.

Smaller notebooks than the  $8\frac{1}{2} \times 11$  standard size should not be used except for very special purposes at the specific direction of the instructor. Cheap 10 cent ring notebooks can be purchased which will serve the same purpose, but they do not protect the paper nor do they have the same room nor the mechanical perfection as the better grades.

A supply of gummed cloth reinforcing rings is cheap, something like 100 for 10 cents. These are usually cotton circles with glue on one side, and should be used before the page holes get worn through by constant use.

### **CARRY ONE NOTEBOOK**

One notebook only should be carried about the campus from class to class and from library to laboratory. The large notebook will accommodate pages of any regular size, including laboratory forms. If all currently useful material for all course and extra-curricular work is carried in this one good quality notebook, then work materials will always be at hand. A little planning can save a lot of time.

### **DEVELOP YOUR OWN SYSTEM OF ABBREVIATIONS**

You should develop your own system of abbreviations and stick to your system. Abbreviations save time in making notes in class and from readings in the library. The temptation to improvise abbreviations to cover up the fact that you can't spell the words is bad, for notes are of no value unless they can be read and understood. Your list of abbreviations can be posted on a divider sheet or on a regular sheet in the front of your notebook. Below is given a common list of abbreviations.

Your sheet or short forms in your notebook will carry additions to suit the courses you are taking.

#### A FEW SUGGESTIONS FOR A START

- I or Ibid.—in the same source or from the same source as just previous noted (*ibidem*)  
i.e. —that is (*id est*)  
etc. —and so forth (*et cetera*)  
N.B. —note well (*nota bene*)  
c. —about (*circa*), as c. 1899  
p. —page  
e.g. —for example (*exempli gratia*)  
cf. —see or compare (*confer*)  
bk. —book  
L —lecture  
Q —question  
Vs. —opposite (*versus*)  
Psy. —psychology  
Cm. —chemistry  
Ed. —education  
r.p.m. —revolutions per minute

#### PUT SPECIAL PAGES IN THE FRONT

Special pages like the page of useful abbreviations can conveniently be put in the very first part of your notebook. Then it is helpful to carry a page for day-to-day notations of assignments, special directions, "things to do," notations of what you want to accomplish in the library tonight. Many students find it useful to include their schedule in a page of their notebooks. Also a calendar of events and due dates can be included. To make this calendar, the days of the week or the month are listed down the left-hand margin and opposite each is noted the special event or assignment to be met. Opposite Friday, the 13th, might be listed "exam in Soc." Another special page might be a table of contents for the notebook. All these suggestions point to the fact that the notebook can be made very useful in many different ways.



### **CLASSIFY YOUR NOTES**

Different colored index dividers or index tabs can be purchased for all loose-leaf notebooks. A supply of these will enable you to mark off a section of your book for each course. These can be placed in the same order in which they come through the days of the week.

### **NUMBER THE PAGES**

You will be constantly adding, shifting, and rearranging the pages in your notebook. This is particularly true for sections devoted to courses which involve laboratory work, class lectures, library reading, and field trips, as, for example, geology. The practice of numbering pages will aid in keeping them in order. This numbering should always be done in pencil, for when the course is finished and you organize your notes for filing or permanent binding, you will want to give final page numbers. The use of letters to indicate courses will be found useful enough times to make it worth the little extra effort. Cm 19 will be chemistry, page 19. Ed 32 will be education, page 32.

### **DON'T CROWD YOUR NOTEBOOK**

The bulky figure is never to be preferred to the slim and the neat, least of all in notebooks. The temptation is to carry books, old sweaters, and gym shoes in the notebook. This tendency should be avoided at all costs.

Furthermore, the material on each page should not be crowded. The waste involved in leaving blank spaces is negligible for paper is cheap; besides, you might want to add something on the same topic later. In fact, you probably should supplement the notes on the lecture on "Theories of Rent" by notes from your text and from collateral reading.

The practice of beginning each new topic at the top of a new page, and of leaving a generous margin on the left and right, and of leaving generous space between points will bear dividends out of all proportion to the cost of the paper which may sometimes be wasted.

Beginning each new topic on a new page, or each day's class notes on a new page, will also enable you to supply headings for each section of your notes. Give your notes headings as, for example, "The Historical Novel," "Theories of Rent," "Electronics." All that you collect about each topic can then be put together to make a set of well-organized notes on each topic or division of the course.

It's a good practice to label each page or each section, or part of a page with the date, source, and topic. In this way a record is kept of sources and sequences. If each new source or new topic is begun on a new page, sorting and regrouping is easy. This feature is one of the main reasons why a loose-leaf notebook is the only kind recommended for the use of the student.

As a general rule, do not use the backs of the pages in your notebook.

### **INCLUDE ODD-SIZE SHEETS**

Instructors will from time to time pass out mimeographed outlines, review problems, reports of research, and other valuable material. All these should be put in their proper place in the notebook. Small sheets and clippings, cartoons, articles from magazines and newspapers on particular topics can be pasted on regular unlined notebook paper with rubber cement, and then inserted in the proper place in the notebook. Sheets that are too large can be cut and pasted on notebook paper or folded to fit. An inexpensive paper punch can be a very useful part of the student's equipment.

### HAVE A GOOD PAPER SUPPLY

Invest in a quantity of paper of all kinds for your notebook, so that you will not be inconvenienced nor have to annoy your friends by borrowing. The kind of paper needed, ruled, or unruled, will depend on the course and your ability to write in a straight line. In general, a supply of ruled, unruled, and squared paper will enable you to meet all needs.

### PRESERVE YOUR NOTES

At the end of the course, when you have taken the final examination, the notes for each course finished can be transferred from the zipper notebook either to a 10 cent ringed notebook, or to specially-made heavy paper covers, fastened by brass split pins or other patent fastening devices. Large, heavy, paper mailing envelopes can also be used to preserve notes. The most compact and convenient form of permanent binding is the home-made heavy covers with screw or split pin fasteners. If a large-size stapling machine is available, this might be used instead of the split pins.

The chances that you will refer back to your old notes are not great, but you might. Students have been known to get advanced credit for work, or be admitted to special courses, because they were able to present their old notes as evidence of their previous work. It costs very little time, effort, or money to put your notes in permanent form. At the very least, you may be able to settle arguments in the years to come at class reunions as to who taught what.

### QUESTIONS AND EXERCISES

1. Find examples of the importance of the notebook in stories of experimenters and explorers who did not survive, but whose work was learned about when their notebooks were found. As a clue, one such story concerns a South Pole expedition.

2. Make a survey of notebooks on sale in town and in the college bookstore. What is the best buy?
3. Make a set of abbreviations to suit your needs for the courses you are taking this semester.
4. Make a study of special covers or binders for long themes. Discuss their value. How do they impress the instructor? Are they worth the 10 cents?
5. Discuss the similarity between the executive's desk calendar of appointments and the special page of "things to do" in the front of the student's notebook.
6. What special sections might be found in a senior's notebook? Would job possibilities be included?

## 20 How to Make Notes

Any college program of studies will present countless opportunities for efficient note making. Knowing how to make notes is the first step in gathering material for a theme, writing a book report, preparing for participation in a debate, or condensing the thoughts from reference books. Many hours of a college student's life are spent in lecture halls where note making while listening is a necessary practice. In order to improve his effectiveness in the search for essential facts, the student will want to master the devices for recording briefly the significant thoughts of others.

### **FUNCTIONS OF NOTE MAKING**

It is generally believed that good notes help to:

1. Keep thinking clear
2. Encourage active participation in lectures and reading
3. Encourage organization of material
4. Lend understanding to the lecturer's plan
5. Develop a longer *retention* period
6. Develop greater *accuracy* in retention
7. Furnish concise, yet complete, outlines for review
8. Eliminate cramming
9. Eliminate fear of examination

### **CLASSIFICATION OF NOTES**

The system of note making differs according to the type of material which might be one of three categories: notes *on* lectures, *from* borrowed books, and *in* owned books.



Lectures are fleeting and completely temporary experiences that call for maximum speed in the reactions of students. The listeners must be practiced in differentiating quickly between main and subordinate ideas, in sensing the relationship between them, and in recording sufficient data to make the lecture meaningful.

With borrowed books, repetition of reading is possible but, very often, not convenient. Therefore, a definite method of organization should be followed in outlining such material so that the notes are meaningful and usable without future reference to the source.

If a student owns a book, it is profitable to underscore key ideas, to use margins to express reaction to the author's viewpoints and to devise a personal set of symbols that will enable the reader to follow and retain the essential ideas.

#### HOW TO MAKE NOTES ON LECTURES

When a person is listening to a speech over the radio, to a sermon in church, or to a lecture in the classroom, he must participate actively, not listen passively. The ideas that he is hearing cannot be recaptured; they must immediately be accepted or rejected as essential or non-essential. Those ideas that he judges worthy of recording must be jotted down in some way that has meaning for the note maker.

No two people make notes in the same way. Upon occasion one student asks another for his lecture notes on a given subject. The second student is quite willing to oblige but invariably adds, "I doubt that you can make any sense out of them." The borrower usually discovers that it is difficult to get meaning from the other fellow's system of shortcuts and abbreviations, his failure to indent to show importance of ideas, and his handwriting which is legible only to the writer.

However, here are a few suggestions. First, the mind should

be ready to receive intelligently the new information. How is that accomplished? If the student has organized his notes from the last meeting of the class, he will not only have eliminated their sketchiness and lack of form, but he will also have gained new understandings, seen new relationships. This preparation makes him ready to perceive the new and to tie it up with the old. Almost always textbook and reference books are used in lecture courses. The sections that deal with the lecture material should be carefully read to provide an organized background of information.

Next, if learning is going on during the lecture hour, students must have sufficient confidence in their abilities to feel capable of adding something to what they receive. If they are judging these new ideas, relating them, or reacting to them, they have eliminated the passive listening attitude which makes lecture hours a boredom.

Good notes are *brief*. To have time to think, students must confine themselves to recording basic ideas. When students mechanically write much of what they hear, they soon fall behind the thoughts of the lecturer, lose interest, and become inattentive.

Authorities agree that another quality of good notes is the use of the words of the note maker, rather than the exact words of the lecturer. This self-expression generates thinking in the mind of the latter; the ideas on the page become alive and meaningful. Of course, if the data is a formula, a reference, a quotation, a definition—in short, any specific fact—it is necessary to record the exact words of the lecturer.

Even good students sometimes miss points in a lecture. In such a situation, the sensible and fair thing to do is to leave a space and to continue with the lecturer. A neighboring student will be willing to supply the information after class.

Titles, introductions, transitional words, repetitions, voice

inflections, and summaries are rather dependable cues for getting main ideas from a lecture. More skilful note making can be acquired with exercises which give practise in using these cues.

If notes are to possess characteristics of good notes and to serve as a permanent record for review, they must be rewritten carefully as soon as possible unless the student has perfected his note making. Besides, this process of reorganizing notes between lectures will help the person to think more clearly and to get ready to profit from and enjoy the next lecture.

In one section of a notebook it is helpful to have notes on the same subject from lectures, textbooks, reference books with the student's reactions attached. A master outline containing notes from various sources assists the student in discriminating and assembling the essential facts.

### **HOW TO MAKE NOTES FROM BORROWED BOOKS**

It is, unfortunately, neither practical nor feasible to own all of the books that one studies. To secure understandable notes from borrowed books, you must observe closely the structure of the section or chapter in question in order to determine the basic outline upon which the part was constructed. On this framework—containing the essential thesis or ideas—a layer of words has been placed by the author for the purposes of clarification, expansion, and emphasis.

Your problem in the taking of notes on borrowed books is to seek out and restate in your notebook the original outline. If the main ideas and related points are written out in brief sentences and phrases, the student will undoubtedly have in a few pages of notes the important data contained in many pages of text. The value of such notes depends, of course, upon how

well the student has assimilated and digested the amplifying portions of the original printed work.

### HOW TO MAKE NOTES IN A BOOK

When an author writes a book, he is in effect talking to you. In a novel, he is letting you in on conversations among the people in the story, as well as describing the scenes of the action for you. When you read a book the author is far away. That, of course, presents no difficulty when the book is a novel to be read for pleasure alone. When the book is a text or a collateral reading, you often wish the author could be there with you to enlarge, explain, amplify. Unless you are fortunate enough to be taking a course from the professor who wrote the textbook, you can't ask questions directly. You can, however, make notes in your book which have the value of making the discussion two-sided. Instead of reading, and therefore merely "listening" to the author, you can make notes in the book and by this means talk back. You can at the very least indicate in marginal notes, "O.K., I understand that."

A professor of English had the quite natural custom of giving books as gifts. He made it a practice to inscribe his gift books in some detail because they were always selected carefully for the particular receiver. He also had the happy custom of making notes in the books he gave. In this way the "talk" carried by the book became three-sided—the author, the giver, and the reader. As the receiver read, he had at many points the reaction of the giver, so that the conversation went on among the three. Sometimes, of course, the reactions of the professor friend did not coincide with the reactions of the receiver. As a result, his gifts stimulated many happy letters. The gift was enlivened and made personal by the giver's notes and comments.

### Adopt Your Own Set of Symbols and Stick to Them

Making notes in a book includes straight underlining, zig-zag underlining, marginal notations, and your own documentation. Some authors give you a start toward note making in a book by using italics for certain words and sentences, and by making numbered lists. Thus is indicated the value of having a system of making notes in a book by which to make parts of the text stand out.

It makes no difference what symbols you choose to use in marginal notations to indicate your reaction to what you read. You can, of course, use an elaborately drawn sword to indicate disagreement with the author. The suggestion that symbols be simple is worth considering, time being generally of some value. The idea of sticking to the same set of symbols to indicate different reactions has the merit of ease of use, for no hesitation is necessary to decide what symbol to use. Also, if the same marks are used to mean the same thing all the time, you will have no difficulty deciding at a glance what your original reaction was.

Below is given a suggested set of symbols for some of the more common reactions to textbook reading. You can easily develop your own personal set to suit your own purposes.



Vertical line in margin to indicate important sentence or part of a paragraph. May be used for a whole page but should not be overused.



Double vertical lines to indicate very important sentence or part of a paragraph.



Vertical wavy lines at beginning and end of a sentence or sentences worth memorizing in the exact words of the book.





Capital D meaning "I disagree" with the ideas in the text opposite.



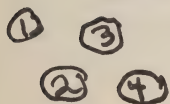
Vertical broken line in margin to indicate "I want to come back to this part later."



Question mark to indicate "I don't understand."



Zigzag underlining to connect key words in a very important paragraph as an aid in following the thought.



Circled Arabic numbers placed at the word or at the beginning of sentences when a series of ideas, results, causes, facts are given. Calls attention to the series and helps fix them in mind.

Abulia



Wavy underlining of a word to indicate that meaning is not clear. Look up in a dictionary.



Lower case or capital E with vertical line to indicate important point for examination purpose. Instructors sometimes suggest parts of lessons falling into this category.



Line under important words or phrases calling attention to key words or phrases to make review and re-reading more helpful and to aid efficient reading.

## Mark Only Your Own Books

Librarians generally object violently to any suggestion that books be marked, for they are afraid that the habit will spread to books that do not belong to the student. This caution cannot be too strongly emphasized. However, students have reported that they enjoy using a second-hand textbook in which the former owner had made intelligent notes and notations. Notes in a book call attention to items, point, words of special significance. A book well-marked is more valuable,

except from a purist point of view, than is a book unmarked. Librarians, however, cannot take the risk of having the library's books made unusable by too much, or inexpert, notation. Rare and valuable books should, of course, be handled with great care. A book mark should always be used and a paper cover made to protect the book binding.

### **Use a Pencil for Book Notes**

It is always safe to use a pencil to make notes in a book. A soft pencil will be found most convenient. Soft lead erases easily and the paper need not be dented. Furthermore, a soft lead is mechanically easier to use and shows up better.

### **Make Your Own Footnotes**

As much as the textbook writer may try, he will not manage to make every sentence crystal clear, nor will he include every detail or illustration. In suggesting the values of a soft lead pencil above, not every possible value was noted. The student can help his reading if he will put a small exponent number after the word *better*<sup>1</sup> to indicate a thought added by the reader at the bottom of the page. Very compact sentences in economics texts can be translated into a formula, or into the reader's own words, and put in the bottom margin of the page. This practice will make review much more efficient, and will also promote thorough study of the text. References to other books read on the same subject, or to lecture notes in your notebook, will serve in the same way to promote effective study.

### **Don't Overdo Note Making in the Book**

Notes and notations made in a book call attention to important ideas and to conflicting ideas which need to be clari-

<sup>1</sup> Soft lead may smear.

fied. Too much note making will defeat both these purposes. If the book you are working on is so complicated or important that you feel you want to fill each page with notes, then a better plan is to make such notes in your notebook. A printed page solidly underlined makes the underlining of no significance. In this same way, it is better to underline *phrases* rather than *complete sentences*. Modifiers should not ordinarily be underlined. The eye is so constructed that it comprehends more than one word at a time. In fact, rapid readers read by phrases and sometimes by whole lines at a time. Besides, there is no need to destroy the sharpness of the impression by too much underlining. The few words or phrases underlined should be enough to call attention to the whole idea.

### Make Word or Phrase Comments

Word or phrase comments in the side margins will enliven the book for you when you reread it or when a friend uses your book. You can talk to the author, or back to him. Such comments as *O.K.*, *fine*, *bunk*, *neat phrase*, *silly*, *I wonder*, *foggy*, *said this before*, *dangerous*, and a thousand others can be used to indicate your frank reaction to what the author is saying. Such comments will provide a background for later discussions with your classmates or with the instructor in class.

### QUESTIONS AND EXERCISES

1. Take a poll of ten classmates to find out their reactions to the idea of receiving a gift book which the giver has read and to which he has added marginal comments.
2. Make a set of the notation symbols you find most useful. Paste a copy in the front of each textbook. Use rubber cement so it can be removed if its presence lowers the resale value of the book if you sell it at the end of the course.
3. Would you rather "take" a course with a professor (a) in the early stages of his writing of a text for the course, (b) when the book was almost finished, (c) after the book

was published and used by him as a text? Give reasons for your answer.

4. Secure a copy of the library rules. Use them as a check list to rate yourself on your use of books and library resources.
5. Assume that the following passage is in a book you do not own but which you want to study carefully. You, therefore, have to make notes as you read. Using a soft pencil, make notes on the following passage according to the symbols suggested in this chapter. Compare with the notes made by another.

## LOGIC<sup>1</sup>

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### Chapter I

#### PSYCHOLOGICAL INTRODUCTION

#### Intuitions Distinguished from Concepts.—Mental Characteristics of Brutes.—Relations of Thought to Language.

The beginning of all knowledge is in single acts of the Perceptive or Acquisitive faculty, each of which relates immediately to an individual object or event. Such acts are called Intuitions or Presentations; the former is the more generally received appellation. Each Intuition gives us a knowledge of its object so far only as this object is perceived *now* and *here*, and also as it is *one*, or undivided, though not necessarily indivisible. To *recognize*, or know over again, the object as similar to another thing perceived on a former occasion or in a different place, or to analyze it into its parts or attributes, or to refer it to a class of things previously known, and thereby to give it a common name, requires the aid of a different and higher power of the mind. In receiving Intuitions, the mind exerts no *conscious* activity whatever; it is passively receptive of any impressions that may be made upon it, and does not in any way consciously react upon or modify those impressions. It is like a mirror reflecting the objects that are held up before it, perhaps giving distorted or unfaithful images of them on account of the imperfections of its own surface, but having no power to change or in any way affect them by its own will.

<sup>1</sup> Francis Bowen, *Logic or the Laws of Pure Thought* (Boston: John Allyn, 1882).

6. Check on your note making habits after reading this chapter. Answer *Yes* or *No* to the following questions.
  - a. Do you miss essential points in lectures while writing down ideas on what has gone before?
  - b. Do you make lecture notes as rapidly as you can write throughout the hour?
  - c. Do you ever make drawings to illustrate points in your reading?
  - d. Do you review the preceding lecture notes before attending the next lecture session?
  - e. Do you make your own set of abbreviations for note making in lectures?
  - f. Do you keep together your lecture and reading notes for each subject?
  - g. Do you consider as final the words of the lecturer or of the textbook?
  - h. Do you believe that note making encourages students to lose interest in a lecture or book?
  - i. Do you generally make your notes on reference reading in outline form?
  - j. Do you think it wise to skim the whole chapter before beginning to make notes?
7. Examine your lecture notes critically; try to evaluate them according to principles of good note making.
8. Student *A* wrote full notes and later studied them; Student *B* wrote few notes and then revised them. Which student has the better plan, *A* or *B*? Discuss.
9. Develop carefully notes on the reading of two or three chapters of some of your textbooks. Examine your results in terms of suggestions given in this section.
10. In what ways do your reading notes differ from your lecture notes?





PART 4

Writing and  
Speaking



## 21 How to Write Experiential Themes of Narration

The writing of themes is probably more closely integrated with the student's career in life than any other undergraduate activity. It is a serious mistake to regard college courses in composition merely as hurdles; requirements to be met and then forgotten. Throughout life human beings are faced with the necessity of communicating with one another, and the student who learns to write well develops a skill the value of which would be hard to exaggerate. To write a theme means to organize one's ideas for the purpose of effective communication.

Some students develop an enthusiasm for writing that they never lose. They take all the courses offered in composition and write consistently for the college publications. Writing becomes a hobby and for some a professional pursuit. It is easily possible for the industrious undergraduate to sell an article to a newspaper or a magazine. If in work, in reading, or in travel, he comes across unusual information, particularly that which has a broad human interest, he has material for a salable article. If, in addition, some aspect of the subject is connected with the news of the moment, with what the public is thinking, it is almost certain that an editor will be interested. There are some subjects, too, in reference to which a college student's opinion has a special value: subjects relating to the curricula, the administration and the policies of schools and colleges, and to the problems, the recreations and the attitudes

of undergraduates, both men and women. And for purely imaginative writing the college student often displays a literary energy which is lacking in the more mature writer. The authors of today were the college students of a few years ago, and those of tomorrow will be developed from the college students of today.

### THE VIRTUES IN THEME WRITING

The first virtue in theme writing, whether for courses in English composition or literature, or for other courses, is *clearness*. There are, moreover, countless situations, both in college and in life, where clearness in expressing oneself is absolutely essential. Whenever a student takes an essay type examination, engages in a discussion or tries to influence others—members of a club, a squad, a fraternity—or seeks to persuade a prospective employer to give him a job, he must express himself in a way that leaves no doubt as to his meaning. The rules of composition which fill the handbooks of writing are based on clearness, that is, they are the results of efforts to avoid the uncertain connections, the doubtful references, the wavering idioms that end in obscurity. Consequently the intelligent student will take full advantage of the instruction he is given and try to make use of the rules of composition that he is taught. He will see that the rules are a means to an end and that poor spelling, illogical punctuation, feeble sentences and weak paragraphs are road-blocks hindering clear expression.

Good writing, however is *emphatic* in addition to being clear. The writer of a magazine article, an editorial, or a committee report, tries not only to set down certain facts and ideas in a comprehensible way, but also seeks to modify the opinion or influence the action of the reader. He must construct his sentences, build his paragraphs, and develop the continuity of



the whole piece of writing so that what he says will be both clear and effective. There is no difference here between the professional writer and the college student. Both have in view a practical objective, and the qualities that are demanded in one case are demanded in the other. When a student learns to write a theme for a course in English composition he is learning to use the tools which men in the business and professional world regularly employ.

The student who expresses himself with clearness and emphasis will undoubtedly achieve a measure of success in writing. But to be completely successful he must also *please* his readers. This means that he must keep the reader consistently in mind. The late C. E. Montague, in speaking of Robert Louis Stevenson, said that the latter never forgot his manners where his readers were concerned. For such a writer nothing is too much trouble if it will add to a reader's enjoyment. To go over and over a manuscript and then to tear it up as not worthy of the reader would be a common occurrence. Courtesy in writing is like courtesy anywhere else: one is willing to take unlimited pains for the sake of others. This means that the student who would write well cannot be content with clearness and emphasis. He must in addition continually try to please his reader, to find the most appropriate, the most exact way of saying what he wants to say. To be clear and emphatic is necessary, but the successful writer must also be persuasive.

### THE SUBJECT MATTER OF EXPERIENTIAL THEMES

All writers—the amateur, the professional, and those in between—must make use of their own experiences; what they themselves have seen and heard and felt. In college courses in composition the assignments will to a large degree depend upon the student's observation and reactions.

Everyone likes to talk about himself. Moreover, everyone, no matter how uneventful his life might appear, has something interesting to say. Interesting subjects for themes of personal experiences are of two kinds: (1) that which is remote or unfamiliar to the reader, and which represents a life different from his own; and (2) that which he knows about because it is a part of his own surroundings, because he has seen and come in contact with it himself.

### The Remote

A description of travel and life in far places will always hold the attention of a large number of readers. They like to read about strange countries and strange ways of doing things which they have never seen and probably never will see. Modern transportation is making the world smaller but a large part of the earth is still unfamiliar to most people. The student who has traveled will always have something to write about.

### The Near

But it is not only in remote places that people and things seize our attention. There are many odd matters near at hand that we like to know about. Unusual ways of making a living, people who are different, how one may learn to do something—speak a foreign language, paint a picture, play a musical instrument, the ways of animals—these are matters to be written about here at home. Every town has its quaint character, everyone remembers how he earned money for the first time, and everyone knows about occurrences that are hard to explain. Even the psychology of pets is an absorbing subject. Here is material unlimited for themes of personal experience. One of the most interesting, later published in a magazine, explained how a pair of skunks had served as sentinels to guard other animals.

## THE METHOD OF WRITING

## The Use of the Concrete

Nothing makes an account of one's own experiences live in the mind of another so much as concrete details. That is concrete which is understood by way of the senses: that which we see, hear, smell and touch. Suppose you wish to describe to a reader one of those occurrences which even the most matter-of-fact person will admit has a quality of the mysterious. All the circumstances would be important and the reader would want to know about the time of day, the clouds in the sky, the direction and velocity of the wind, the look of the trees and other natural objects, the arrangement of furniture in a room, the distinctive sounds such as the creaking, the cracking, and the scurrying so audible in a house at night, the smell of a garden, a ploughed field, of salt marshes and, beyond, the sea. If you are telling someone about something you yourself have seen, or about an adventure in which you have had a part, he will remember what you say just so far as you make him understand the colors, the sounds, the feel of the things you are talking about. The blue of the water in mid-ocean, the peculiar depth of a cat's eyes, the smell of cake in the oven, are examples of the concrete and specific that make a narrative remembered.

The following episode from *Look Homeward, Angel* by Thomas Wolfe illustrates the use of the concrete to convey color, sound and movement.<sup>1</sup>

The wood was a vast green church; the bird cries fell like plums. A great butterfly, with wings of blue velvet streaked with gold and scarlet markings, fluttered heavily before them in freckled sunlight, tottering to rest finally upon a spray of dogwood. There were light skimming noises in the dense undergrowth to either side, the swift bullet-shadows of birds. A garter snake, greener

<sup>1</sup> By permission of Charles Scribner's Sons, publishers.

than wet moss, as long as a shoelace and no thicker than a woman's little finger, shot across the path, its tiny eyes bright with terror, its small forked tongue playing from its mouth like an electric spark. Laura cried out, drawing back in sharp terror; at her cry he snatched up a stone in a wild lust to kill the tiny creature that shot at them, through its coils, the old snake-fear, touching them with beauty, with horror, with something supernatural. But the snake glided away into the undergrowth and, with a feeling of strong shame, he threw the stone away. "They won't hurt you," he said.

### Selection of Detail

But even close observation and the use of the concrete will not be effective unless the details are properly sorted and arranged. One feature of the experience will be more interesting than another and one, of course, will be most important of all. It is toward this that everything must point. A well-written story about something which one has done will accentuate this most important part by making everything else subordinate to it; yet everything included has a certain importance and this must be brought out by a proportionate emphasis. Of course many details will be omitted altogether, but everything that is brought in must be given its due place. For example, it may or may not be necessary to tell the reader exactly when a certain incident occurred. But if you were writing an account of a fishing trip, you would probably set down what time you started, how far you had to go, the appearance of the water, the kind of boat you set out in and so forth. Each one of these details would have a distinct relation to the climax of the occasion, when the big fish was finally landed.

### Reaching a Climax

This word *climax* is of the utmost significance. In telling any story you are taking the reader along with you on a road he has never before seen. He is willing to go because you have

promised to show him something of great interest. That which he is waiting to see is the climax of your narrative. Here is the payoff: either he will be glad he has come along or he will feel that he would have been better off at home. There are two ways in which you can satisfy him. Possibly you may be lucky enough to have found something so striking, so humanly revealing, so odd or quaint that anyone would be glad to be told about it. But for the most part the interest in the matter will depend largely upon you, upon that which you see in whatever you are writing about. It remains for you to make the reader feel as you feel about the thing you have seen or the event in which you have had a share. The successful writer is the one who can communicate his perception and his enthusiasm to someone else.

### Words and Sounds

Now it follows that the means for making a story successful are largely dependent upon the effective use of words. Let us look for a moment at the matter of conveying sounds. A few sentences from *The Light That Failed* by Rudyard Kipling will show the way in which an expert writer succeeds in making one hear the sounds he is describing: <sup>1</sup>

The drum-sticks fell with a boom, and the men swung forward to the crash of the band. Dick felt the wind of the massed movement in his face, heard the maddening tramp of feet and the friction of the pouches on the belts. The big drums pounded out the tune.

Suppose you want to indicate to someone the peculiar quality of the wind during a storm, or the wash of water against a dock on a quiet night, or the inescapable note of an approaching airplane. Ordinary words will not suffice to reveal the distinctive quality of any such sound. It is necessary to search

<sup>1</sup> From the edition of Doubleday & Co., by permission.



for the word that exactly serves the purpose. Often you may not find it, but you and the reader will be well repaid when you do.

### **Avoid Threadbare Language**

There is a danger here, however, for this effort to catch the quality of colors and sounds and to suggest sensations has established certain phrases that are worn out through overuse. You cannot write any longer that "a key grated in the lock," that "the sunlight danced on the water," that "the rain drummed on the roof" or that "her eyes were like stars." These are clichés and must be avoided. For the most part that which is simplest is best. Just tell what you have seen in the words that come naturally to you. But at the same time if you can think of a good comparison, and especially if it is one which most people would not think of, you can go far toward making others understand.

### **Remember the Reader**

A good many writers, it seems, lose sight of the reader altogether. You should, of course, be full of your story; it should occupy your mind and your imagination so that you can't be contented without telling it to someone. But at the same time you must always remember that some features of an experience are of interest only to yourself. It is necessary always to put yourself in the place of a listener, to ask yourself, "Should I be interested if somebody else were telling me this?" or "Is this really important?" If you are telling about a camping trip, for instance, it is probable that no one else will be much concerned with a great many things that come up in your memory. If you spent, let us say, two weeks in a canoe, one day was probably like another, and to tell over again how you broke camp in the morning, how you stopped

for lunch, how tired you became at the end of the day, would not hold anyone's interest. It is the ability to focus the attention of the reader continuously that is the measure of your success and this means that you must see your story through the eyes of your audience.

There is one other quality that a theme of personal experience should have. The reader is concerned with what you have done because this bears a certain relation to the activities of human beings in general and in this way, of course, to his own. It is necessary therefore that the point of the story be clearly perceived, that is, the connection of what you have seen and done with the doings and interests of other people. If your narrative shows human nature from a new angle, if it exhibits the qualities we all admire, if it shows the good in the worst of us and the bad in the best of us, whoever hears it will feel that he has learned something about people and thus about himself. Any and all experiences are interesting if in telling about them you can make the reader feel that he has seen a little further into the mystery of human nature.

### QUESTIONS AND EXERCISES

1. Select a subject from your own experience suitable for a theme of narration. Dispense with unnecessary details and decide on a method of presentation.
2. How does the professional writer in dealing with an experience of his own highlight the climax? How would you proceed in this respect in a theme based on your own activities?
3. Choose a first personal narrative published in a magazine and make an outline of it showing the emphasis on certain parts.
4. In the published article you have chosen, examine the author's use of description in heightening the narrative effect.
5. Write several different introductory paragraphs for a narrative theme and decide which, in the end, will prove the best.

## 22 How to Write Experiential Themes of Description

The earliest writing of which we have any record was in the form of pictures. And in a sense descriptive writing today is like that pictorial record of our ancient ancestors. But now if a person wishes to tell another of something he has seen, he does not depend on the crude representations of those old forms. Whatever may have been the origin of the alphabet—and we are not concerned with that here—the writer today who tries to describe something has a far more powerful instrument than a mere combination of letters in the form of pictures. For now the individual letters exert a different and more subtle influence on the mind of the reader as they are combined in words. This influence is manifest in two ways: through the exact meaning of a word, and through its connotation or power of suggestion. Descriptive writing is largely dependent upon the suggestive in language.

### KINDS OF DESCRIPTION

There are two kinds of description, the *scientific* and the *artistic*. Both are a part of a college curriculum. Scientific description is that which depends not only upon observation but on measurement, and the greatest care in the use of instruments of measurement is necessary. Such description seeks to achieve a scientific statement based upon precision; it demands primarily exactitude and care. Whatever writing is involved merely connects the details of measurement and change.

Artistic writing, however, is concerned not so much with accuracy as with effect. When the instructor of an English composition class assigns a theme of description, his purpose is to determine how vivid a picture the student can create by the use of language.

Of the two kinds of description, it is our intention here to consider primarily the latter, or artistic, type, since this form is the more difficult of the two.

### THE QUALITY OF DISTINCTION

A famous French writer, the novelist Flaubert, said that everything, even the most familiar and commonplace, had about it some quality of distinction. He contended that it is the business of the writer to discover this and find words with which to represent it. Concentrated observation is demanded but that should always be a basic part of a writer's procedure. If he will look carefully enough, said Flaubert, he will find this quality of the unique. Stevenson put it more sensationally when he said that "certain dank gardens cry aloud for a murder." But he was only indicating the individuality of certain places.

When you set out to write a description of something, then, you should seek first for that which distinguishes it from other objects of a similar kind. A landscape, a house, a person, an animal, each must reveal to you that which makes it different. When you have determined upon this quality it becomes necessary to find words and combinations of words to convey it to another's mind. It is your purpose to make the reader of your description see what you yourself have seen in that which you are describing. To achieve this end you cannot depend directly upon colors and light and shadow. To suggest these and other characteristics you must rely on the magic of words.

## THE SUBJECT AND ITS TREATMENT

### Selection

Most days pass by and are completely forgotten, but sometimes we see something so unusual, so striking, that we remember it and even recall it and talk about it a long time afterward. Scenes that remain in the memory are worth describing. Now a good many people are prone to think that any description set down in words is or should be concerned only with the beautiful. But they are mistaken, for much of that which we remember is not beautiful but dramatic, symbolic and even ugly. Your desire to describe what you have seen is measured by your own emotional response—that which stirs you is that which you want to tell other people about. An old house that suggests life a hundred years ago, a canal which no longer carries commerce, a slum on a stark noon in July, the sleek contours of a modern building—these challenge our consideration and linger in our thoughts.

Try now to select a subject for description. The college stadium on the day of a big game, a beach as it looks in winter, a building being torn down, a bridge under construction—such subjects have both picturesque and dramatic interest. As you think about the subject you have chosen, you should determine upon a point of view, that is, your own position in relation to that which you are describing. When this has been fixed, you will naturally review in your memory the details to be seen from your point of observation; then the inevitable process of selection and arrangement begins. It is, of course, not necessary, and probably not desirable, to limit your description by maintaining a single point of view. But when you change your position in relation to the object or the scene, you must be sure to inform the reader so that his angle of vision will not be different from your own.



When you have described the subject with what seems sufficient thoroughness, examine what you have written to ascertain its probable influence on the mind of another person. Description involves not only perception but response. It is not enough to create a mental picture; you must also produce a reaction. Just as the scene or object you are writing about is for you a matter of mood or attitude, so should it be for the reader. You must arouse in him feelings like your own. Wonder, amusement, melancholy—these words suggest emotions that descriptive writing may evoke.

### Finding the Exact Word

In the section dealing with narrative themes of experience it was said that the writer must search for the exact word that will serve his purpose. This may not be a fancy word at all; indeed, a simple one is often the most effective. The Anglo-Saxon elements in English are those with the most direct descriptive power. The problem is to find the proper word for the proper place: that one word without which the picture is dull and with which it is clear and lifelike. The italics in the following passage from Booth Tarkington's *Alice Adams* illustrate this statement: <sup>1</sup>

He was conscious of the city as of some single great *creature* resting fitfully in the dark outside his window. It lay all round about, in the damp cover of its night cloud of smoke, and tried to keep quiet for a few hours after midnight, but was too *powerful* a *growing* thing ever to lie altogether still. Even while it strove to sleep it muttered with *digestions* of the day before, and these already merged with *rumblings* of the morrow. "Owl" cars, bringing in last passengers over distant trolley-lines, now and then *howled* on a curve; faraway *metallic* stirrings could be heard from factories in the *sooty* suburbs on the plain outside the city; east, west, and south, switch-engines chugged and *snorted* on sidings; and everywhere in the air there seemed to be a faint, voluminous hum as of

<sup>1</sup> From: *Alice Adams* by Booth Tarkington, copyright 1921 by Doubleday & Company, Inc.

innumerable wires *trembling* overhead to *vibration* of machinery underground.

### Power in Comparison

No writer, of course, can depend altogether upon the individual word. His effect is produced by combinations which taken together are rich in meaning and suggestion. Such combinations are particularly effective when they involve a comparison, for by pointing out certain similarities in the thing observed to something quite removed, the writer exerts a force on the mind of the reader. At times such a comparison is hinted at in an individual word; at other times it is complete and explicit. These qualities in descriptive writing are revealed in this picture in Conrad's famous story *Youth*.<sup>1</sup>

The deck was a tangle of planks on edge, of planks on end, of splinters, of ruined woodwork. The masts rose from that chaos like big trees above a matted undergrowth. The interstices of that mass of wreckage were full of something whitish, sluggish, stirring —of something that was like a greasy fog. The smoke of the invisible fire was coming up again, was trailing, like a poisonous thick mist in some valley choked with dead wood. Already lazy wisps were beginning to curl upwards amongst the mass of splinters. Here and there a piece of timber, stuck upright, resembled a post. Half of a fife-rail had been shot through the foresail, and the sky made a patch of glorious blue in the ignobly soiled canvas. A portion of several boards holding together had fallen across the rail, and one end protruded overboard, like a gangway leading upon nothing, like a gangway leading over the deep sea, leading to death, as if inviting us to walk the plank at once and be done with our ridiculous troubles.

As you call to mind a familiar scene, what comparison suggests itself to you? Pick out an important detail or aspect of the place or scene you are thinking of and indicate its distinguishing features by an adjective or a simile. Sometimes contrast rather than similarity is implied, as is illustrated in the

<sup>1</sup> From: *Youth* by Joseph Conrad, copyright 1903 by Doubleday & Company, Inc.

above selection from Conrad's *Youth* in the reference to the "glorious blue" of the sky. In any case, however, you seek to arouse by means of that which is striking and original. Yet ingenuity alone will not suffice; your comparison must be recognized as being appropriate and revealing. Unless the reader acquiesces; unless he is struck by the likeness or the incongruity you have pointed out, he will not be able to create for himself the picture you want him to see.

### Improving on Nature

The artist Whistler has said that nature is almost always wrong, and Fontaine Fox, the cartoonist, corroborates this statement when he speaks of processing the material of observation. The latter tells most interestingly of how walking home from the railroad station he would come upon a scene which he saw at once that he could use. But he goes on to explain that the details must be rearranged, the grouping altered, in order to emphasize that aspect of the scene which he might wish to bring out. A group of children playing in a field he explains, might stir the interest of the artist but very likely the children would be in the wrong places in relation to a barn or other building or perhaps a grove of trees. The artist must rearrange these details so as to focus the attention of the observer upon that which is most important and likewise to establish the proper relationship of each part to every other part.

The artist who paints employs colors, light, shadow, lines and curves to produce his picture. The writer may obtain a like result through the medium of language. Obviously the appeal of the writer is to the mind and not like that of the painter directly to the eye. But the effect on the imagination of the reader must be just as great as that of the picture on canvas. It might be contended that the effect of all forms of art is the

same, that only the media of communication are different. Without indulging in any final generalization we may conclude that it is the function of the artist—painter, writer or musician—to needle the imagination of his audience until the mind of each person he addresses is teeming with colors and forms and dramatic pulsations before unknown. When you write a description, it is your object to get a rise out of your reader, to make him see something, that is, perceive something, he has not been aware of before.

All art is a triangle the points of which are the artist, or writer, the object and the observer, or reader. The relationship of these may vary, as there are innumerable triangles. But just as you cannot have a triangle with one or two angles, so all three must function in the creation of every work of art.

#### QUESTIONS AND EXERCISES

1. Choose something to describe, a house, a room, a person, a landscape, and list the distinguishing details.
2. Consider in reference to a subject selected for description whether you must limit your appeal to the eye. What sounds, smells or other sources of sense perception can you introduce?
3. Look for subjects that would be interesting to describe. Then seek for comparisons that would be both fitting and original. When an original comparison occurs to you, write it down for future use.
4. In your reading for pleasure examine the vocabulary of the writer who makes you see things and try to determine the explanation of his success.
5. Take a familiar place, outdoors or indoors, and, eliminating certain details, build up the emphasis of one aspect of the scene by relating the parts to one another in a new way.

## 23 How to Write Exposition

Practical writing in college or out is usually in the form of exposition. The term means simply *explanation*; and this broad meaning obviously includes organized information of any kind. It follows, therefore, that courses in history, sociology, political science, literature and so forth are conducted by means of expository writing.

### SOME FORMS OF EXPOSITION

#### The Definition

The simplest form of exposition is that which defines something. The most compact definition is that of a single word but unless you are compiling a dictionary it is unlikely that you will be called upon to define words individually. Definitions are of two kinds: *formal* and *informal*. The first are those that are met with in scientific terminology, where it is necessary to establish precise objective limitations if a term is to be understood and made use of. Such definitions are found in physics, in botany and in other sciences, and their boundaries admit of no transgression. The terms *erg*, *watt*, *salt*, *coniferous*, convey an exact meaning in connection with the science where each is employed. An informal definition seeks to create a general conception of the meaning of a word or a combination of words in accordance with the writer's understanding of the meaning, and he employs illustration, comparison, and even



anecdote to make his idea clear. Some words and expressions which might thus be informally defined are: statesman, courage, college spirit, defeatism, a good student, a poor sport.

In constructing a definition either formal or informal one should seek to make it inclusive enough to cover any instance in the general class indicated by the term defined, and exclusive enough to keep out everything not properly belonging to the subdivision of the general class which the term represents. Thus an automobile and bicycle would each be defined first as a vehicle; the further definition of the former would exclude all vehicles not driven by their own power, and the further definition of the latter would exclude all vehicles with more than two wheels. A good definition is a complete exposition in itself and illustrates the qualities that good expository writing should display. It is a good exercise to take several pairs of familiar words such as automobile and bicycle and write informal definitions that are clear and exact, bringing out the similarities and differences of each term with respect to the other with which it is coupled. Such combinations as market—store, shrubbery—hedge, office—conference room, travel—journey, college—university, serve as illustrations.

### **Student Themes of Exposition**

A definition is a complete exposition in itself, but it constitutes only one form of expository writing. Explanations for the most part are concerned not only with individual terms but also with the relations between them. It is likely that in English courses a student will be called upon to write a number of expository papers, some of them quite long and covering much material. A further discussion of assignments of this kind involving independent investigation is to be found in the chapter dealing with the research paper. Here we are concerned particularly with the student theme, presumably but

not necessarily that required in a course in English composition, which might cover a particular phase of a process or establish reasons for a certain opinion or attitude. The general contents of a paper of this sort can be indicated by such titles as, "Why I Did or Did Not Join a Fraternity," "Why Wordsworth Is a Great Poet," "The Semi-Professional in College Athletics." The writer seeks to set forth certain facts in a logical relationship, to draw certain conclusions from them, and to establish his opinion in the mind of the reader.

### Expository Writing in Letters

A good opportunity for expository writing is to be found in letters. When you write to a friend, unless you confine yourself to an account of your own doings, or a description of the weather, or trivial gossip about mutual acquaintances, you find yourself trying to explain something that is in your mind. A valuable exercise in exposition is afforded by the selection of some aspect of your immediate environment or the life of the city or town in which you live, and the attempt to convey this to someone at a distance and quite unfamiliar with the subject. Picture, for example, writing a letter to a correspondent in South America who had never crossed the equator and who knew nothing about the cities or the conduct of life in the United States. You would try to explain to such a person what seemed to you most significant in the life of this country. Naturally you would select for discussion that which was a part of your own experience or had come under your observation. Writing about the United States in wartime you would very probably recall such features of the American scene as rationing, heavy taxes, diminished automobile traffic, overcrowded railroad cars, cigarette lines, uniforms of various kinds, casualty lists, high prices, certain presidential utterances, juvenile delinquency. These obviously are not of equal

importance; some you might decide to discard altogether. You would then arrange the material and adjust the details so as to emphasize that which you particularly wanted to impress on the mind of the person receiving your letter.

### Expository Writing in Magazine

The magazines today are filled with expository articles; exposition is a popular form of reading. In such an article the writer tries to convey his own interpretation of the phenomena that he has observed—scientific, political, psychological—to a reader who often knows as little of the subject as the imagined correspondent of the college student, but who is curious and eager for information. Much that is helpful in writing may be learned from careful examination of informative and explanatory articles. Take one that has particularly interested you and try to discover how the author of it obtained his results. Ask yourself why he put a certain paragraph in a certain place. Rearrange the matter in your own mind to see if change would impair the effect. Make an outline of the article and study it for emphasis. Note carefully the author's use of original comparisons, allusions, understatement and anecdote, and consider what use you may make of such methods. Magazines so divergent in character as the *Saturday Evening Post*, *Atlantic Monthly*, *New Yorker* and *Ladies Home Journal* regularly contain expository articles by leading journalists. The alert and intelligent student will read them as a matter of course for the information they contain. He can also learn much from them about writing.

### THE METHOD OF EXPOSITION

When you attempt to write an expository paper yourself, whether for a course in English composition, or in the form of a report for another course, or in any other connection, you

should arrange your material and control your expression so that the result will be completely clear and comprehensible. But, as has been said, it should be more than that, for you are seeking to lead the reader on from one aspect of the subject to another in such a way as to produce a cumulative effect. Successful expository writing is not only clear and correct in its details; it must also be interesting.

There are several ways in which a student theme of exposition can be developed. If you are writing about certain events of the past, for instance, giving an account of Franklin D. Roosevelt's political career or a description of the successive developments of the war between Japan and the United Nations, you will probably begin with the point furthest away from you in time and continue toward the present. It is obvious, however, that many subjects such as those indicated in the preceding paragraph are not historical and cannot be discussed in terms of succeeding events or developments. A little further thought convinces us that the procedure must be accommodated to the subject. Here are a few familiar methods with possible application:

From the simple to the complex: a textbook on mathematics

From the particular to the general: scientific research

From the general to the particular: a textbook of law

From the near to the distant: an explanation of a layout, for example, an army camp, as developed from the speaker's position.

It would not be surprising if all these methods so indicated should not seem clear or practical. One method, however, which every student would recognize immediately is that of proceeding from the easy to the difficult. Many, if not most, textbooks are organized in this fashion, although in some cases, as has been indicated in reference to history, other methods may be employed. It is also plain that more than one plan might be followed: an explanation which develops from the



easy to the difficult may very readily begin with the particular and go on to the general. It is most important to remember that each step or subdivision must rest logically on that which has gone before and lead naturally to that which follows. For the student such logical development is largely dependent upon his choice of a subject. He should exercise great care in regard to this and try to formulate in advance a title that will reveal the purpose of the paper. A topic that is trivial or, on the other hand, one that is beyond his capacity, would obviously be unsuitable. If, however, the subject chosen reflects a genuine interest, perhaps a hobby—photography, boat building, collecting, radio—the writer can speak with both enthusiasm and authority. He will likewise presumably be familiar with the special vocabulary relating to the subject, and thus be able to use the precise language of the expert. The way of carrying on an expository discussion and the details of development will in every instance be dependent upon the subject and the author's intention.

In general, it is possible to indicate the difference between one method and another by the terms *analysis* and *synthesis*. Analysis in expository writing suggests the method of stating a general proposition and then drawing from it specific instances. When Thomas Carlyle wrote *Heroes and Hero Worship* he had a general conception of the Hero in mind; he proceeded to develop and illustrate this by discussions of specific heroes, such as Dante, Shakespeare and others. Synthesis, on the other hand, implies a sufficient number of individual cases to warrant the drawing of a conclusion or general statement from them. After citing a number of examples in different communities one might reach the general statement that the average age of brides is lower in wartime than in peace. Such a conclusion, based upon a sufficient number of instances, would represent synthesis.



### EXPOSITION AND ARGUMENT

In reality, the method followed in expository writing, other than that which is purely scientific in nature, will be determined to some extent by the author's desire to make the subject interesting. He may simply be seeking to inform, to set forth certain facts or observations or beliefs. But he may in addition wish to bring his audience around to his way of thinking; in that case he will not be content with explanation but will try to convince and persuade the reader that a certain conclusion is correct and any other conclusion false. Sometimes the line between argument and exposition is a fine one, and a full explanation may prove to be in itself completely convincing. Suppose an enthusiast sets out to tell us why he thinks mountain climbing is the greatest of all sports. He may explain so plausibly, advancing ideas and furnishing illustrations in such an original manner, that when he is finished telling us all about it we may agree with him, even though we have never climbed anything higher than the hill in the park near home.

### PRACTICAL USE OF EXPOSITION

The active business of life demands the writing of exposition for specific purposes. One of the most familiar of these is the securing of a job. If you want to work for a certain organization, you will probably be called on to write a letter of application containing the salient facts of your personal history and setting forth your qualifications for the job in question. Such a letter would seek to make out as good a case as possible, and the person who has made a study of exposition and who has developed some skill in writing would have a decided advantage over the person who had no training in arranging information and emphasizing that which is important. Many jobs, moreover, demand an ability to write explana-

tions that are clear, convincing and persuasive. Advertising is the most obvious example of a business in which writing skill is a necessary part of one's equipment, but in any business, reports, summaries of investigations, letters of adjustment to customers, and sales letters are a part of commercial routine.

### Examinations

The taking of examinations—we are concerned here with the essay type—confronts the student with the necessity of explaining what he knows. He must be able to discriminate between the important and the unessential. In addition he must be able to arrange his information in an orderly way and, bringing out the connection between one point and another, subordinate the less significant features so as to emphasize that which really deserves attention. If in a course in American history you were asked to discuss the attitude of the United States toward joining the League of Nations at the conclusion of World War I, how would you proceed? You might, of course, follow the example of the late Calvin Coolidge in describing the position of the clergyman he had just listened to with respect to sin—he was against it—but such brevity would not make for an *A* in the course, unless the examination demanded a “yes” or “no” answer. The professor asking the above question would be seeking a complete, detailed and carefully arranged statement.

### Exposition As a Skill in Life

Exposition is above all, as was said at the beginning, a practical matter. Organization is of paramount importance, and special care must be given to the opening and closing paragraphs of any expository composition. In the beginning you state your subject and reveal the purpose of your discussion, seeking to promote interest with the information you set forth

and the ideas you suggest. At the end you establish the conclusions which logically follow from your development of the subject; here is your last opportunity to reach the mind of your reader with something that he will remember. The individual detail likewise must be handled with consistent skill. Mention has been made in this chapter of the semi-technical vocabulary, namely, those words employed in relation to a particular activity, or process, often with special meanings and connotation; golf, baseball, yachting, dressmaking, real estate—each has a language of its own. In dealing with any subject a writer should seek the emphasis that results from the ability to employ the idiom of a sport or craft. The wise student will devote as much energy as possible to the task of acquiring a clear, compact and effective style.

Not infrequently you hear someone ask, "What good did any course in college do you after you got out?" Such a question implies, of course, a negative answer. But in the case of a course in English composition devoted to expository writing, the common-sense answer would plainly be in the affirmative.

#### QUESTIONS AND EXERCISES

1. Write in one paragraph a definition of a familiar phrase: good deal, a close call, getting by, good neighbor policy.
2. Examine carefully the beginning and the end of a published expository article you have found interesting and try to apply the author's method in your own writing.
3. After you have selected a subject for expository discussion, consider the best way to develop it from the point of view of the reader's understanding.
4. Write a letter applying for a job and check its effectiveness by showing it to several business men, noting carefully their reactions.
5. Make an outline for an exposition of a matter of present day interest and then try to cut it in half, that is, reduce the projected discussion to half its original size, without destroying the clearness and emphasis you had in mind.

## 24 How to Write a Research Paper

In many courses in college, in English, history, sociology, philosophy and others the student is called upon to prepare a research paper. Sometimes this is a term paper and represents a large part of the student's work in a course during a semester. A research paper may even take the place of a final examination, and the student who completes it successfully will have demonstrated a satisfactory knowledge of the subject studied. In other cases a research paper accompanies shorter assignments and a final examination as a part of the student's responsibility in a particular course. And in certain instances a research paper is a requirement for graduation, independent of any one course the student is pursuing, and represents work carried on through the student's senior year or perhaps for a longer time. But whatever its subject or whatever field of knowledge it belongs in, a research theme presupposes original work.

### SOURCES

The most obvious source of information is to be found in books dealing more or less directly with the subject of the student's investigation. Presumably the member of the instructional staff who is responsible for the research, often the professor conducting the course for which the student is preparing his paper, will supply him with a bibliography at the outset of the work. Encyclopedias, dictionaries, *Who's Who*, and its counterpart in continental Europe, and reports of

institutes, foundations and committees are standard reference. Sometimes a university or other organization will appoint a committee to carry on a special survey. An example of the work of such a committee is the Harvard report: *General Education in a Free Society*. Documents of this kind may be filled with information related to the subject of a student's research paper. Valuable comment too, is published in popular magazines, even those that seek to appeal to the largest possible audience, and the *Readers' Guide to Periodical Literature* will often enable the student to find material connected with the topic under investigation which so far has appeared only in magazine articles. Many matters, likewise, of political, social and literary interest are discussed seriously, sometimes by experts, in the editorials and special columns of the best newspapers; the opinions of leading thinkers and the results of special investigations often appear in such newspapers as the *New York Times*, the *Christian Science Monitor* and the *Manchester Guardian*.

In a course in English literature, for example, you might be assigned a research paper covering the important events in the life of an author and his published work. If the information is a matter of established record, you will no doubt have to consult various sources for different details. The instructor would not select a subject already covered in a single book or article. Moreover, there may be quite a difference of opinion among authorities with respect to dates, titles, and so forth. Your research will disclose these differences.

### METHODS

It is obvious that a research paper on any subject will involve the collecting of a great deal of material. But not only must much material be collected; it must also be intelligently organized. The student will no doubt make some sort of an



outline in the beginning, but this outline will be modified and perhaps radically changed as he continues. An over-all outline is virtually necessary if the student is to avoid wasting time over side issues, but new material will demand inclusion and minor topics will have to be shifted from one place to another. Making notes on cards will afford the most practical solution to the problem of organizing material. The student should obtain cards which may be readily filed in an ordinary cardboard box or a desk drawer; cards  $3 \times 5$  inches are very satisfactory for collecting notes. Cards may readily be moved about and both major and minor changes in the organization of the paper may be made without any trouble or loss of time. A practical method means economy of effort.

### **Be Accurate**

In preparing a research theme of any kind the student assembles facts and details that have not previously been brought together. He looks up records, examines dates, authenticates names, and compiles statistics. In some cases the assembling of information defines the demands of the paper; in other instances the student may be called upon to draw conclusions based on the information he presents. In all cases, however, a research theme can succeed only if the author of it maintains throughout a high standard of accuracy. The very purpose of a piece of work of this kind is to gather information as a basis for judgment and a slight error in any one instance might invalidate the whole. The exact day and even the hour of a death or a birth or a marriage may determine a legal decision affecting an inheritance, the payment of an indemnity or the discharging of a debt. In any piece of research you are called on to carry out, you should check and recheck the details until you are willing to stand behind your paper and vouch for its accuracy.

## Be Thorough

The purpose of a research paper is to develop in the student the ability to get information for himself. If this information is superficial and insufficient, the result will be unsatisfactory and the student's knowledge of the subject will remain unreliable. It follows, then, that the student must make every effort to find out all the facts that have a bearing on the subject he is investigating. Some subjects, of course, are so broad that no one could follow in a term paper all of their ramifications, and in dealing with any topic a person might be bewildered by the variety and multiplicity of the details he encountered. It is necessary, therefore, to distinguish between the important and the less essential. One thing leads to another and before he knows it the student may find himself a long way off from the main track of his investigation, pursuing a will-o'-the-wisp in a fog of confusing information. Thoroughness does not mean focusing one's attention on the unimportant. It does necessitate, however, a willingness to employ as much energy as is requisite to uncover and assemble the facts that contribute to a comprehensive knowledge of the subject at hand.

In a course in American history, for instance, a student might be asked to prepare a research paper on the operation of the underground railway at the time of the Civil War. The point of such a paper presumably would be to establish the relationship of this method of freeing slaves to the great national movement of which it was a manifestation. Unless the student kept this relationship constantly in mind, he might readily be lost in the mere details of operation and in the pursuit of the adventurous exploits of individual emancipators. But whatever is necessary to an understanding of the underground railway as an aspect of social change marking an epoch of American history must receive due consideration.

It is the responsibility of the student to assemble all such information, to establish the proper relationship of one part of the subject to other parts and to give the correct emphasis to that which is most significant. The student should put himself in the place of the person reading the paper and make sure that from the reader's point of view he has omitted nothing essential to an understanding of the whole subject.

### **Beware of Generalities**

In a desire to express the opinions he has reached as a result of his investigation the student may often find himself indulging in a sweeping statement or conclusion that makes no proper allowance for exceptions or variations. A witty man once remarked: "All generalizations are false including this one." This tendency to generalize, moreover, is characteristic not only of the undergraduate. The mature author, who ought to know better, is too often indiscreet enough to set forth a statement that a moment's careful consideration will show to be dangerously inclusive. In preparing a research paper the student will no doubt come across statements of this kind, sometimes very obvious, sometimes concealed by other material. The alert investigator will be quick to perceive questionable generalizations in the books he consults, and be consistently cautious with respect to the conclusions he sets forth in connection with his own research.

### **Fact and Opinion**

In gathering material for a research paper the student will often include both fact and opinion. Accuracy as regards facts is merely a matter of consulting reliable records. There should be no difficulty about this; familiar sources of information, those published by the government, the Brookings Institute, the various foundations, as well as the records of births, deaths,

transfers of property, and so forth would not be open to question. If the student does not know where to find such information, he should consult the professor by whom the research paper was assigned or, perhaps, the assistant who supervises individually each student's work. In the matter of interpretation, however, the value of an opinion depends largely on the authority of the person uttering it. In seeking interpretations of facts and conclusions to be drawn from them, one must try to determine what weight should be attached to the opinions he encounters. Academic connections, books published, official position and recognition by others active in the same field, such as the professor conducting the course for which the student is preparing a research paper, are factors by which to determine the authority of published opinion. It may be, of course, that the opinion of a comparatively unknown person will prove very valuable, but argument by authority, and that is what opinion really amounts to, is largely dependent upon recognition of the person who is speaking. Accuracy with respect to facts and soundness with respect to opinion are of primary importance: If you are thorough and painstaking with regard to the sources you consult, you will gain a reputation for accuracy and reliability and thus earn the respect of the professor to whom your paper is submitted.

### How to Put in Footnotes

It is necessary to cite authority for the statements you make, and presumably in any research paper footnotes accompanying the text, or an appendix of published sources with references in the text, will be required. In preparing the manuscript of a research paper the student will find it more convenient to incorporate references in footnotes with the text than to follow any other method. When you come to a state-

ment which it is necessary to reinforce with a reference, you should continue to the end of the line and then, drawing two lines across the page, place the footnote between them before you continue with the text. If a student were assigned a research paper on a certain period in the history of American poetry, he would, of course, refer to the prominent figures of that time. Suppose in the above mentioned course in literature you were discussing the poet Eugene Field; you might wish to emphasize the inclusion in Stedman's anthology <sup>1</sup> of a certain

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<sup>1</sup> Edmund Clarence Stedman, editor, *An American Anthology*, 1787-1900 (New York: Houghton Mifflin Co., 1900).

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poem. In order that the reader should understand the reference, you would include a footnote such as is here illustrated. This arrangement precludes the necessity of pasting an additional piece of paper at the bottom of the page in order to get in the necessary footnotes for which the student has not allowed sufficient room.

#### EXAMPLE

Let us suppose you are preparing a paper on Samuel Rogers, July 30, 1763—December 18, 1855, a poet who is little read today but who was an important figure in the literary life of his time. For the general outline of his career you would very likely consult the *Dictionary of National Biography*. For more detailed information you would turn to a full length biography, if such were available. In this case the prestige of the biographer would be involved. You might also consult the records of the poet's period in the published opinions of his contemporaries. Much of this material would presumably exist in books which a well-equipped university library would contain. But it might be desirable to investigate the reviews in the magazines of the poet's own time. For this material you



might have to hunt out copies published when the poet was living and preserved today. And for full biographical detail and further information about books, letters, and unpublished manuscripts it would be necessary, in any such instance, to consult museums, court records, parish registers, county papers, and so forth. It is unlikely, however, that an undergraduate would be asked to go beyond published material except for that not as yet incorporated in a book or article but readily procurable. It is rather the undergraduate's responsibility to examine the published sources with proper thoroughness. If he does so, he need not fear that the accuracy of his information will be questioned.

### THE GOAL TO BE REACHED

Caution alone, however, leads to a negative rather than to a positive result. In many cases, certainly, the assignment of a research paper will involve not only bringing together recorded facts and quoting published opinion, but also a statement of the student's own attitude toward his subject. A vital part of research is fact finding, but in the end a fact proves valuable as it finds a place in a complete design. A student may, of course, be given a specific and limited research task: the assembling of statistics, the compilation of percentages, and so forth. But presumably a research paper will contemplate a larger objective. When the evidence is in, the student must be able to assay it, to form judgments and to present convincing conclusions.

### QUESTIONS AND EXERCISES

1. Investigate the sources of information on a subject you would like to know more about; list the books and periodicals which appear to contain worth-while material related to your topic.
2. Sample your sources and make notes on cards of everything important.

3. After you have assembled some material, study a carefully worked out article in a serious magazine and compare your information with that contained in the article as to completeness, accuracy and conciseness of presentation.
4. After you have examined a subject and reached certain conclusions, test those conclusions to determine their soundness with respect to all the facts you have been able to gather.

## 25 How to Write a Précis

The *précis* is a restatement of the maximum number of ideas contained in an original article expressed in the fewest possible words consistent to clear meaning. Synonyms for the *précis* are *synopsis*, *summary*, *abstract*, *digest*, *résumé*. None of these equivalent terms has the exact meaning of *précis* for the *précis* is the most compact statement of all, is the most condensed, uses the fewest words, and permits of no change in the meaning of the original. The *précis* is not a paraphrase, for the author's words are not used as is permissible in a condensation. The *précis* is not an outline, for by definition the *précis* is a statement of complete ideas.

Modern life with its complexity and multiplicity of things to do makes the use of short concise statements of considerable value. The newsstands are crowded with digests, reviews, books of excerpts, and excerpts of books. Good news reporting requires much the same skill as is used in writing the *précis*, for in both a premium is placed on good judgment in elimination and selection.

The values of *précis* writing are many. The *précis* is an aid in reading especially complex and involved exposition, for the preparation of a *précis* requires thorough understanding of the author's meaning. The same training is valuable as an aid to good note taking especially of lectures and is thus an aid in the development of efficient listening ability. The round-table or discussion or forum is made more valuable to the partici-

pants and to the listeners if someone in the group is able to make a good précis at the end of the discussion.

It would be a mistake to conclude from what has just been said that the value of précis writing indicates that the original statement was unnecessarily verbose and wordy. Quite the contrary is true, for the thorough understanding of the idea is the original intent of the writer. The interest of the précis writer is as often a check of understanding as it is conservation of words. It must be admitted that the précis is made at some sacrifice of elaboration of meaning and fine shading. It must also be admitted that the student new to the ideas well stated in a précis might have more difficulty extracting the complete meaning from it than from the original enlarged account.

#### **PRACTICE FIRST WITH SINGLE SENTENCES, THEN PARAGRAPHS**

All authors take the time to color their writing with adjectives and to elaborate the meaning by saying the same thing in slightly different words with slightly different emphasis. In the original text this practice of elaboration is necessary and valuable. One good way to begin to develop the art of précis writing is to take single sentences and practice making them into précis form. Each sentence rightly constructed contains a thought. Modifiers, clauses, and appositives, color and reinforce the basic idea of the sentence. To state the exact thought of a sentence in the fewest possible words is the essence of précis writing.

Sometimes an entire paragraph is an elaboration, amplification and explanation of a central idea which can be stated in a single sentence. If care is taken to include the essential meaning and exclude the non-essential elaboration, this single sentence then becomes the précis.

### READ CAREFULLY BEFORE WRITING THE PRÉCIS

The writing of a précis is of chief value because it mandates a thorough understanding of the ideas contained in the original material. It is logical then to suggest that the first step in developing a précis is to read and reread the original text. It is sometimes helpful to understanding to read it aloud. Certainly key words should be carefully noted and an earnest attempt made to grasp the central idea. It is well to read the original once to get the general drift, then to reread, checking it through sentence by sentence. New and unusual words should be looked up to get the exact meaning. In a poem, for example, *ministers* may mean preachers or prime ministers. It makes a great deal of difference what each word connotes or what particular meanings the author intended.

### MAKE A TITLE FOR YOUR PRÉCIS

The act of making a title for a précis forces the mind to make one final attempt to see the idea in brief statement. Frequently the original title cannot be improved upon but the act of thinking for a new and shorter and better title does have the merit of providing a final check on the clarity of the understanding.

### AVOID INTRODUCING PERSONAL OPINIONS

The précis is in no sense an evaluation nor a criticism nor an endorsement of the original passage. The writer of the précis must guard against the tendency to introduce his own ideas or his personal opinions. The précis is in a sense a microfilming of what the writer is saying. The précis maker should be as faithful in sticking to the original ideas as is the camera.



### AVOID TOO GREAT USE OF THE AUTHOR'S OWN WORDS

The common outline practice of picking phrases from the text to put in the outline endangers the whole value of précis writing. Too great use of the original words results in a condensation rather than a restatement. The condensation has its place but in précis writing the object is to develop a check on complete understanding to provide a short statement. It is frequently possible to shorten a paragraph simply by crossing out words. Such a process does not insure or indicate understanding.

The methods of the original text such as stating cause and effect, analogy, contrast, comparison, may, of course, be used. This does not mean that the identical words of the original must be employed. Key words and technical words must, of course, be used for there may be no near equivalent.

### MAKE A FINAL CHECK OF THE PRÉCIS

It would be unfair to suggest that someone more expert could write a précis of your précis. A good student is well advised, however, to make a final last-ditch check to see that the précis contains all the essential ideas of the original text and that no unnecessary word is used. This step is best done after some time has elapsed after the précis has been written.

#### AN ILLUSTRATION OF PRÉCIS WRITING <sup>1</sup>

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|--|---|
| <p>1. The Jazz Age—that fascinating feverish, half-mad decade of the 1920's which left us all fatigued and a trifle bewildered—<u>had its sordid aspects</u></p> | <p>Before your second reading the dictionary will have to be consulted for the meaning of some of the following words: <i>sordid, rhapsodical, sentimental, complacent, iconoclasm, panegyric and censor.</i></p> |
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<sup>1</sup> Mabel A. Bessey and Isabelle P. Coffin, *Active Reading* (New York: D. Appleton-Century Company, Inc., 1941), pp. 201-204.

both in manners and in literature; but it did deal a death-blow to the rhapsodical, or sentimental, type of biography.

Following the same procedure (indicated by numbering and underlining on the passage) we find the following ideas:

1. The Jazz Age had its sordid aspects but dealt a death-blow to sentimental biography.
2. The modernists have not invented any mysterious new biographical technique. Such masterpieces as Boswell's *Johnson* in the eighteenth century and Froude's *Carlyle* in the nineteenth have not yet been superseded, and may be studied with profit even by our complacent generation.
3. But, a few exceptions aside, the prevailing fault of biography up to the World War was an unwillingness to expose any deceit or indiscretion in the immaculate hero.
4. Dr. Samuel Johnson, with his unfailing common sense, declared, "We have had too many honeysuckle lives of Milton," and then proceeded rather clumsily to overturn the author of *Paradise Lost* from his pedestal. Johnson's iconoclasm, however, was due rather to his Tory prejudice than to a passion for truth.
2. Modernists have not invented new technique as can be seen by study of Boswell's *Johnson* and Froude's *Carlyle*.
3. With few exceptions, prevailing fault of biography up to the World War was unwillingness to admit any fault in hero.
4. Dr. Johnson overturned Milton from his pedestal because of Tory prejudice, not passion for truth.

5. One hundred and forty years afterward, the late Lytton Strachey spoke disdainfully of Victorian biographies, "with their ill-digested masses of material, their slip-shod style, their tone of tedious panegyric, their lamentable lack of selection, of detachment, of design," and pointed out that it is "perhaps as difficult to write a good life as to live one." This indictment may have been too severe, but it was badly needed.
5. One hundred and forty years later, Strachey spoke disdainfully of Victorian biographies for their tone of panegyric and lack of plan.
6. Strachey, himself, not satisfied with merely playing the rôle of editor, was ready to indicate by his own example how biography ought to be written.
6. Strachey not only played rôle of censor, but gave example.
7. Because he practised what he preached the spirit of biography is different today from what it was in 1875. (272 words.) "Debunkery and Biography"
7. Today, the spirit of biography is different from that of 1875.

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With this material your *précis* may read somewhat as follows:

In spite of its inferior phases, the Jazz Age did put an end to the sentimental biography. It did not invent a new type of biography, as Boswell's *Johnson* and Froude's *Carlyle* show, but with few exceptions, the subject of the biographer was without fault. Johnson's less sentimental biography of Milton grew out of political

bias rather than desire for truth. Lytton Strachey, a hundred forty years later, criticized the Victorian biographies for their wearisome praise and lack of plan. Because he not only criticized, but followed his own teaching, we have today biography with a different spirit. (96 words.)

If further condensation were demanded, it would be possible to eliminate discussion of the exceptions, stressing only the kind of biography produced:

The Jazz Age put an end to sentimental biography. Up to the First World War, earlier writers with few exceptions presented faultless heroes. Lytton Strachey severely criticized the style and wearisome praise which characterized Victorian biography and, showing how it should be written, brought about a different spirit in biography. (46 words.)

#### QUESTIONS AND EXERCISES

1. Select a chapter which you have been assigned as part of the work in one of your courses in history, economics, sociology, political science or education. Using the example of précis writing in this chapter, prepare a précis.
2. Answer for yourself the following questions:
  - a. Did it help your understanding to number the main ideas?
  - b. Are you certain of the meaning of all words? Did consultation of the dictionary prove helpful?
  - c. What reduction in the number of words did you achieve?
  - d. Did you succeed in excluding all personal opinion?
  - e. Could you improve on the original title of the chapter?

## 26 How to Prepare and Give Talks

Everybody and his brother and his sister make speeches today. Classrooms, the radio, service clubs, women's clubs, P.T.A. meetings, even the campfire and the family circle provide the opportunity and the obligation to present a thought or a whole speech full of thoughts. Democracy thrives on talk, for the right to stand up and say your piece is a basic democratic heritage whether you are presenting a trophy at the Yacht Club banquet or attacking the "interests" from a soap box in Union Square.

College should make certain that students acquire the ability and the self-confidence to make a speech with only a slight gesture toward being coaxed. The physician, school-teacher, lawyer, plant manager—all have their speech-making opportunities, for the county meetings, district convention, and national meetings are a part of every business and profession. The chances are good that before long you will be asked to deliver an address or "to say a few words for the motion" or "to place a name in nomination."

### RECOGNIZE THE LOCAL SITUATION

Bob Hope was the radio rage during the early 1940's in part at least because he slanted his material toward the audience for the evening. Marines got marine jokes, flyers got flying jokes, submarine men got wet jokes. President Roosevelt made radio history when, speaking from the White House, he paused



to get a drink and said, "It's a hot day in Washington." It's a very simple thing to be natural, for after all, when you are making a speech, you are talking to a group which has some unity, some distinctive color.

Remembering those present is a courtesy which costs little, but is appreciated by all. In the salutation, don't forget the man who introduced you. Give him a nod and a "Mr. Chairman" at least. Should the dean be present, recognize the fact: "Mr. Chairman, Dean So and So" (So and So is used here only in place of his name). He will appreciate your thoughtfulness. "Fellow Americans" even in a harsh voice at one time thrilled all Americans as did the sincerely beautiful "My friends." Find out before you get up who is present and recognize them. Even a "Distinguished Visitors" or "Classmates and Members of the Faculty" will often suffice.

Take care not to offend anyone. The local group may include special friends of the Negro race at which time stories in Southern dialect may not be good taste. A college president at an alumni banquet once referred to "Jack as a dull boy." The next man introduced was Jack Black, a very popular coach. All had a good laugh at the president's expense until Jack proved to be a very dull and long-winded speaker. (Strange how long-windedness and dullness so often go together.)

### STRIVE FOR BREVITY

Your chances for spoiling a speaking chance by talking too much are a million times greater than by talking too little. When Williams Jennings Bryan was asked to talk for two hours he said, "That is easy, I can prepare that speech in five minutes." The point Bryan was making was that a short speech has to be well prepared, which fact may be one reason why short speeches are usually better. (Of course with short

speeches you get out for a smoke sooner.) Lincoln's *Gettysburg Address* is the classic example of a short speech. Preachers, or at least their congregations, have the saying that "no souls are saved after the first fifteen minutes."

You will, of course, always have a great deal you might have said, but didn't. To be well prepared for a five-minute talk at the Student Forum, you should have enough material for fifty minutes. The thought is that you consider your friends the audience and boil the material down for them. Overpreparation will also give you a feeling of confidence, for you will not dread finding yourself with nothing to say. The brief speech does not imply skimpy preparation—quite the contrary. For a two-minute speech, Bryan is reported to have spent two hours in preparation.

#### PAY ATTENTION TO PHRASING

In writing or preparing a talk, lecture, or speech, it is well to remember that one phrase or one sentence may "make" the speech. Theodore Roosevelt's "economic royalists" will continue for a long time to be part of our language. Winston Churchill's "never in the history of human conflict have so many owed so much to so few" is all that the world remembers of a great speech made at an hour when who should rule the world was being decided. Franklin Roosevelt's "All we have to fear is fear itself" did much to lift America out of the depth of despair in 1932. And who said "We have a rendezvous with destiny" and "Education is not an assessment but an investment"?

These examples make it very clear that one good phrase can make almost any speech. Special attention should be paid to the first and last sentences. No effort expended to make these key sentences really good is wasted especially if they come close enough together.

### HANDLE STORIES WITH CARE

Stories, gags, humorous incidents liven up even the most formal speeches, and the funny can be more devastating than the ponderous. But be careful of stories. One good one well told is far better than many well told. You can twist most stories to reinforce a point. You can even use the chairman's name instead of the original name. You can, in fact, throw into your speech a phrase or a word to "remind" you of a story. Use stories, funny stories, but make certain that you have the punch line so well fixed in mind that you will not muff it.

### GET STATISTICS IN SHARP FOCUS

There are times when statistics have to be used but nothing can lose an audience faster than a long recital of figures. A few simple suggestions if followed will take some of the curse off statistics: use as few as possible. Use round numbers; say about six million rather than \$6,149,262.43. Reduce comparisons to simple ratios. Say, for example, one in four rather than seventeen out of sixty-eight. Use as few as possible.

If charts and tables are displayed for the use of the audience, take great care to make certain that each one carries one sharply focused message. You will lose your audience if they can't see the chart or if it is too complicated. A much better plan is to have the key tables, charts, and pictographs mimeographed so that the listeners can have a personal copy and therefore be certain of seeing them.

If a film is used with a speech, show the film *after* the talk. Even then the preceding speech must be either very, very good or very, very short. Few speakers can compete with a motion picture. The talk with which a film is associated should serve mainly to introduce the picture.

**AVOID STOCK PHRASES**

Stock phrases like "I'm not a speech maker" or "Unaccustomed as I am" should be avoided even as an attempt to be funny. They are completely worn out. The urge to use them arises from the fact that novice public speakers find them an indirect way of apologizing. Do not use them. If you are new or awkward at the game of speech making, you don't have to tell your audience nor do you have to apologize. Do your best in the shortest possible time and let it go at that.

**GET READY AS FAR IN ADVANCE AS POSSIBLE**

If you agree to make a speech tomorrow or at the close of the next semester or three years from now, begin at once to prepare, on paper. The sooner you get a possible speech outlined the better. If you are like other humans, you will think about that speech that is coming up in a day or month or six months almost every night as you close your eyes for sleep. If you have one ready you will find an ease of mind. Besides, you have a chance to improve it.

It is a good plan to anticipate speech-making possibilities. You may not be elected president of the club at the annual banquet, but you might. If you are, what will you say when your name is announced and the hand clapping dies down? It won't do much harm to be all set. In the same spirit of preparedness, it is not unethical to think about the meeting or the dinner party coming next Thursday and to get in mind a topic of conversation you want to start or even a good story you think may go over. The best way of flattering hostesses, hosts, fellow club members, is to give evidence that you thought enough about them to be ready to hold up your end. Like most *ad libbing* on the radio, "off the cuff" speeches are usually well-prepared speeches.

### USE NOTES IF YOU MUST

It is no crime punishable in the courts to read prepared speeches or to use notes. In fact, highly important technical papers are best read. In general, however, even with large audiences, it is better to talk rather than to read. Set speeches for oratorical contests are memorized, even the gestures are memorized, but declamations are not truly speech making but a special form of competitive emotionalism.

The beginning and ending sentences on which you have worked so hard may be memorized but they are ordinarily the only parts of a speech that should be learned by heart. For the rest of the paper, word or phrase notes should suffice. For a ten-minute speech, a ten-word set of notes should be sufficient unless you have to use definite statistics. Each word should call to mind an idea you want to express, an idea which you have so thoroughly in mind that you don't need notes even though you are nervous.

If you do use notes, don't try to fool your listeners. Hold your card so they can see it. Don't add a touch of amateur sleight of hand to your contribution. It is not necessary to apologize for using the notes—just use them frankly and get on with your speech.

### AVOID MANNERISMS

All of us have little habits with our hands, feet, heads and mouths. Some people pull at their ears, others hike up their pants, still others clear their throats, or rub their noses. What you do may speak so loud that your listeners can't hear what you say. One formal music concert was ruined because a tall thin man on the tuba blew out his cheeks almost as far as his big ears. The audience giggled. The distraught conductor didn't know until after the first concert what was wrong, for



even his best friends attending rehearsals had never told him.

Mannerisms are as natural and almost as necessary as breathing. What is meant in this suggestion is that strange, unusual, annoying mannerisms should be eliminated by anyone who talks to anyone else and especially by persons making speeches. The only way to find out about these things is to have a friend tell you. Some mannerisms are attractive and lovable, as for example, Grand-dad so busy talking he lets the match burn his fingers, making it necessary to use three matches to relight his cigar. The aged can be forgiven. Beginners however should spot objectionable mannerisms and get rid of them.

### **GET SET TO TALK**

Soon you will be introduced; any minute now the chairman or master of ceremonies will put you on. You have your greeting well in hand, you are all set to give that well-prepared opening sentence. All that is left to do is get a last sip of water, clear your throat, blow your nose, and stretch your mouth.

The novice at speaking commonly feels in need of a drink of water. It is a good plan to take a drink or at least wet the lips just before getting up. While you have your handkerchief out hiding the lip wetting, you might as well stretch your mouth, open it wide, move the tongue around, really stretch it, pull the lips tight together. These brief exercises will help you overcome the tightness which is common to even experienced public speakers.

### **HANDLE PAUSES CAREFULLY**

Pauses are dynamite. They may show a lack of knowledge, stage fright, or complete mastery of the situation. Not infrequently the pause when the speaker says nothing is the best part of a speech not because he has nothing to say, but because he is saying a lot and saying it well.

There are several important pauses in every speech. There is that first one while you wait for quiet. You look over the group, wait for the couple in the back to look at you, a hush falls; everybody is looking at you; you have every ear; then you begin. Then comes the slight pause between the first and the second part—not too long, but long enough to tell everybody you are going on to another point. Then there is that last brief, but pregnant silence, while you wait for your audience to get all set for the final clinching, moving closing sentences or paragraph which you deliver very softly or very loudly but with great feeling. The last pause is not a real pause, but a slight gathering yourself together before you sit down. You are in no great hurry, you hate to leave such a good audience but you must. The last pause says this.

To pause too long is sure death; to pause too briefly is a waste of an opportunity to make an impression. You must be alert, sensitive to the mood of your listeners and you must have something to say. No rules can be given. You “feel” such things, but the general suggestion, “Don’t hurry your start and your close” will be helpful.

#### **VARY THE VOLUME AND SPEED**

The very loud and the very soft are the speaker’s way of underlining. Both can be impressive. Both indicate important parts of a speech or what the speaker thinks is important.

A thirty-second pep talk at a football rally can be all loud and all fast. A thirty-minute talk before the Ladies Aid Society or the Philosophical Society must have variation in speed and volume. The slow delivery of a particular phrase or sentence says to the audience “This I want you to get.” The very loud and very soft say the same thing.

The best possible rule is “Mean what you say.” It is only fair, however, to remind you that the great love passage in a

Broadway play delivered by the actor for the one hundred and ninety-sixth time may sound full of deep, quiet passion because the man has practiced saying those lines that way at least one hundred and ninety-five times before. All people except professional lecturers, preachers, and actors can be safely guided by the rule "Really mean what you say."

### **TALK BEFORE THE CAMERA AT YOUR PERIL**

More and more the audible film will be available to ordinary mortals. No talking assignment is more difficult than the talk given to the sound movie camera. A few rules will help.

1. Make few movements and those, make slowly.
2. Talk naturally but a bit slower than usual.
3. Talk distinctly, but don't show you are making an effort to talk distinctly.
4. Don't rattle your notes or script or anything else.
5. Don't talk while looking down at your notes. Notes are better held back and to one side of the camera.
6. Don't look at the microphone or anything else, except a little to the right or left of the camera.
7. Don't moisten your lips or cough or clear your throat.
8. On the last five words move the eyes slowly to focus directly on the lens.
9. Look at the lens; don't move even a finger until someone says O.K. Just sit looking at the lens.
10. Don't smile unless your content demands it or you have the world's greatest personality.

### **YOUR NERVES ARE NATURAL**

Every good speaker is nervous before a speech. He doesn't shake, his mouth is not full of dry crackers, but he is nervous. To meet an audience is a challenge. W. J. Bryan said he was always nervous before a lecture. To be nervous is natural. You should be keyed up, but not too much. The days when speakers were shot or ridden out of town on a rail are gone. The most you can do is take a flop. When everybody is gone, or

at least not looking at you or listening to you, you can quit and sit down. You will be nervous. You can count on that, but if you have something you want to say, go ahead. Your knees will stop knocking. You may make a good speech—the tenth time you try.

## CHECK LIST ON PUBLIC SPEAKING

(adapted)

ARMY SERVICE FORCES  
MEDICAL FIELD SERVICE SCHOOL  
CARLISLE BARRACKS, PA.

*Total Estimate*  
(e.g. "3")

NAME: \_\_\_\_\_ SUBJECT: \_\_\_\_\_ DATE: \_\_\_\_\_

**Directions:** Place a check mark (✓) at the right, indicating your opinion of the factor listed. Check (✓) the description listed under each factor only if it applies. Use the dotted line to make any specific comments.

1	2	3	4	5
Excellent				
Good				
Fair				
Poor				
Unsatisfactory				

**APPEARANCE** \_\_\_\_\_

1	2	3	4	5

Dignified bearing .....	_____	Lack of dignity .....	_____
Good posture .....	_____	Poor posture .....	_____
Neatly dressed .....	_____	Poorly dressed .....	_____

VOICE \_\_\_\_\_

I	2	3	4	5

Too low .....	Too high .....
Too slow .....	Too fast .....
Too soft .....	Too loud .....
Good pitch .....	Poor pitch .....
Good inflection .....	Poor inflection .....
Pleasing quality .....	Unpleasing quality .....
Good enunciation .....	Poor enunciation .....
Convincing voice .....	Ineffective voice .....

## VOCABULARY \_\_\_\_\_

1 2 3 4 5

--	--	--	--	--

Moderate or no slang ... _____	Excessive slang ..... _____
Effective use of slang... _____	Ineffective use of slang... _____
Use of simple words... _____	Technical or abstract ..... _____
Good choice of words.. _____	Poor choice of words .... _____
Adequate ..... _____	Inadequate ..... _____

## MANNERISMS \_\_\_\_\_

1 2 3 4 5

--	--	--	--	--

Restless ..... _____	Walks about too much.... _____
Hands in pockets ..... _____	Hands on hips ..... _____
Looks away from audience ..... _____	Distracting gestures ..... _____
Er's and Ah's..... _____	Talks down to audience.. _____
Talks to blackboard .... _____	Plays with paper or other object ..... _____

## PRESENCE \_\_\_\_\_

1 2 3 4 5

--	--	--	--	--

Bored _____	Insincere _____	Sincere _____	Enthusiastic.. _____
Aloof _____	Unfriendly _____	Friendly _____	Inspiring _____
Lack of force _____	Forceful _____	Poor attitude. _____	Good attitude. _____
Humor ..... _____	Local situations recognized .. _____	Statistics ..... _____	

## PREPARATION \_\_\_\_\_

1 2 3 4 5

--	--	--	--	--

Talk well planned ..... _____	Talk poorly planned ..... _____
Aids well planned ..... _____	Aids poorly planned ..... _____

## DISCIPLINE \_\_\_\_\_

1 2 3 4 5

--	--	--	--	--

Holds attention ..... _____	Loses attention ..... _____
Good control of audience ..... _____	Poor control of audience ..... _____



		1	2	3	4	5
PRESENTATION _____						
Clear introduction .....	_____	Poor introduction .....				
Good eye contact.....	_____	Poor eye contact .....				
Good organization and sequence .....	_____	Poor organization and sequence .....				
Emphasizes important points .....	_____	Important points insufficiently emphasized ....				
Good audience participation .....	_____	Poor or lack of audience participation .....				
Adequate explanation of new terms .....	_____	Inadequate explanation of new terms .....				
Refers only to notes or outline .....	_____	Tendency to read .....				
Clear, concise and brief conclusion .....	_____	Poor or no conclusion....				

		1	2	3	4	5
AIDS _____						
Lettering legible .....	_____	Lettering poor or illegible _____				
Good charts and/or diagrams .....	_____	Poor charts and/or diagrams .....				
Size of aids appropriate. ....	_____	Size of aids not appropriate .....				
Good use of aids.....	_____	Poor use of aids.....				
Sufficient aids employed _____	_____	Insufficient use of aids....				

ADDITIONAL COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

RATER: \_\_\_\_\_

### QUESTIONS AND EXERCISES

1. On page 271 is a chart adapted from one prepared for use in Army Officer's Training. Using this chart as a base, prepare your own chart for public speaking.
2. Using the chart you have prepared, rate yourself in your public-speaking ability.
3. To aid in your understanding of good public-speaking ability, use your chart to rate the next speaker you listen to. Compare your ratings with those given the same speaker by a friend. A fifteen-minute radio talk will serve this purpose except for items like appearance.

## 27 How to Develop Good Speech

Speech is the great revealer. Your speech will tell the alert listener where you were reared, on which side of the tracks you grew up, something about your racial stock, the state of your health, sometimes even where you went to school and college. In the World War of the early 40's, all American soldiers in the Pacific theater of operations were instructed to listen very carefully to all native talk. The disguised enemy could not cover up the fact that he had great difficulty with the English / even though he had attended an American university.

The way you speak is not alone dependent on choice of words, use of idioms, slang, barbarisms, nor is it a matter of grammar or correct usage. The way you speak—whether it is pleasing, easy to listen to, attractive or harsh, shrill and annoying—depends on your hearing, breathing, tenseness, nasal passages, control of the muscles of the mouth and throat, the condition of your teeth, as well as pitch, inflection, intonation, timing and phrasing. All this makes the familiar act of speaking sound horribly complicated and it is. The importance of speaking to success in office or living room is, however, so great that almost any amount of effort to acquire a pleasing and effective speaking voice will pay rich dividends not alone to those who aspire to be salesmen, teachers, preachers, lecturers but to everybody; for everybody talks.

Americans were early marked by foreigners for the good

care given to the teeth. Later the quality and quantity of clothing was a cause for wonder. Eventually we got around to giving a great deal of attention to the care of the fingernails and of the hair. So universal have become these habits of expert attention that it is almost impossible to tell Park Avenue from Water Street by a casual glance or even an interested stare. Yet too often when we open our mouths to speak, we reveal the great gulf which still separates the high and the low born, the schooled and the untutored, the educated and the neglected. It may truly be said that the method of mass production has obliterated all markings of class, except the differences in the quality of the speaking voice.

The individual fortunate enough to grow up among educated, cultivated people who give attention to developing a well-modulated, effective voice has a distinct advantage. It is encouraging to note, however, that a good speaking voice can be acquired. No one shies from trying to make a good impression by cleanliness and good grooming. There is no reason why all Americans should not give equal attention to the voice. The benefits in personal happiness and business success, as well as the elimination of "nerves" will make any effort worth while.

It should be made very clear that formal speaking assignments in debate, forums, round-tables, in the theater, or on the platform is not our chief concern here. A reassuring speaking control is important in these situations as well as in all speaking before formal groups. The greatest benefit to most individuals will come, however, in the personal, day-to-day, family and office relationship. The person careless of speech will in the not-too-distant future be considered as discourteous as one who is slipshod in his manner. We owe to those who have to meet and talk with us the same consideration of their ears and nerves we now habitually give to their eyes. The strident, grating, shrill

voice must come to be considered as offensive as bad breath and jarring colors. The poet's prayer for the power to see ourselves as others see us must be amended to include hearing ourselves as others hear us.

### **SPEECH REVEALS PERSONALITY**

There can be tears in the voice long before they spring to the eyes. Pagliacci's laugh in his famous prelude fools nobody. Our speech gives us away. The person tired and discouraged talks tired and discouraged, the grim talk grim, the angry talk with a snarl, the thoughtful speak deliberately, the impatient reveal their impatience. The drab person is shown up in his dreary, lifeless speech. We all know the mean voice of the crab, Scrooge, and the whining tones of Uriah Heep.

Men who have the job of employing help for office, schools, factories do everything possible to get the candidate to talk, for the speaking voice will show up, as no letters of recommendation ever do, the true personality of the applicant.

The relationship of speech and personality is very fortunately not a one-way business, for the way we speak can affect the way we feel. That person who by dint of heroic effort greets his room-mate with a deliberately cheery "Good morning" and who makes himself talk all day long as though he had not a care in the world will find that the effort determines the way he feels. He will feel better, more cheerful, happier for having talked that way.

The benign or sinister part the voice plays in revealing a person's character and general personality was strikingly shown in an analysis of a group of representative American women's way of speaking made by Dr. James F. Bender, in the *New York Times*.<sup>1</sup> Dr. Bender concluded from samples of speaking on stage, screen and radio that

<sup>1</sup> September 9, 1945.

Because they are responsive to thought content, they insulate ideas one from another by vocal "framing." There is a sparkle, sometimes referred to as *timbre*, that reflects good health and care of the speech mechanism on the part of their owners. They lack hoarseness, pitch that is too high or too low, nasality and all other deviations that are unpleasant to hear. Finally they treat the spoken word endearingly—that is, with appropriate feeling.

Each of the women singled out for special mention by Dr. Bender showed distinctive characteristics which marked each as a special individual. For example, Eleanor Roosevelt was marked as being "pleasant, kindly, smooth"; Katherine Hepburn, "crisp, clear-cut"; Lauren Bacall, "intense"; Greer Garson, "delightful, pleasing tones"; Shirley Temple, "relaxed, understandable"; Jennifer Jones, "unaffected, soothing."

### YOU CAN FORGET PHYSICAL DEFECTS

The chances are very good that you can forget all about physical defects in any part of the speech mechanism except possibly teeth. Even stuttering is rarely a problem for the surgeon. To the everlasting credit of doctors and American parents, the harelip has all but disappeared from the American physiognomy. Time was when everybody thought that opera singers had to be great, robust, deep-chested giants to fill the opera house with song. Such petite stars as Lily Pons and Patricia Munsel have given the lie to that out-worn myth. Small men do not have to have thin voices, skinny women need not be shrill, 200 pounders do not have to boom enough to shatter ear drums.

The truth is that the speech mechanism is not only amazingly free from malformation, but is also a delicate instrument. Just as the kettle drum may boom in a Wagnerian crescendo and again be only a whisper in a love duet from *La Boheme*, so the human voice instrument may be played in a wide and effective range by the large and the small. The wrongly voiced



person almost never can find an alibi in his physiology; he must face up to the fact that his ineffective voice is the result of lack of control and bad practice.

### HEAR YOUR OWN VOICE

Good tones in speaking or on the trumpet are impossible to deaf persons for the very simple reason that they cannot hear to check for quality. Teachers of speech commonly make a recording of the students' speech the very first thing, if for no other reason than to make the students voice-conscious. Under ordinary circumstances our voice is not "heard" by ourselves. Every house is equipped with mirrors so that we can check on our appearance. The growing popularity of home recorders, both disc and wire, may in time do for good speaking what the universality of the mirror has done for good grooming. One manufacturer, in fact, puts out a wire recorder called, of all things, a "mirrophone." Not even a super-frank best friend can make clear to you how your voice sounds. Cupping the hands behind the ears will give some slight notion of how your voice sounds to others, but only the recorder can give the true and complete picture. It can be safely said that not even a start can be made toward a better voice without repeated hearing of your own voice.

In this connection it is interesting to note that speaking ability in all languages is acquired only through hearing the language. Schools and colleges are careful in the selection of language teachers to employ natives or those who have lived and studied in the country native to the language involved. Even the way we speak English was acquired from those surrounding us during our early formative years. It is very difficult, in fact, to determine whether a child is deaf before he begins to speak. A late beginning of speech is frequently the first indication that the child is deaf.

Because speech is acquired and improved only through hearing correct speech, it is important for students with especially difficult speech problems to have their hearing checked not by the usual watch or whisper method, but by a 4A, and then if any doubt exists, by a 2A audiometer. In many schools and colleges such testing is routine. When this is not so, the individual should consult the speech department or the medical office for a thorough check.

### PRACTICE SINGING

Many of you can't sing a note, can't carry a tune, but the advice still stands: practice singing if you have the worthy ambition of improving your speaking voice. Shower bath singing will count. Speaking and singing are mechanically the same except that in singing the tone, the time, and the pitch, are determined by the musical score. Many radio announcers had a musical background. The justly famous Graham McNamee and Milton Cross both were singers in their own right before they went into radio announcing. This same relationship between singing and speaking is the reason why people like Helen Jepson, Gladys Swarthout, Grace Moore were great stars in Hollywood. The singer has trained his voice to sing which means that he has also trained his voice to speak.

Informal singing practice should be done with attention to tone quality and pitch range. Your *mi, mi, mi, mi*'s can give practice in breath control as well as pitch and range. Mood can also be introduced. Make your *mi*'s register the soft soothing tones of a lullaby or a love song and the booming commands of a comic-opera sergeant. You can let yourself go in mood so long as you retain absolute control of the voice mechanism. It should always be remembered that singing and speaking "feelingly" can easily be overdone, to the detriment of the effect you seek.

### **PRACTICE BREATH CONTROL**

The human voice is the result of wind passing across two vocal cords. Tightening or loosening the cords controls the pitch. Controlling the wind or breath eliminates "breathlessness." Singers hold an ending note until it tapers off to a whisper by using the air stored in the lungs a little at a time. Belabored breathing while speaking is annoying and unnecessary. In the same way the singer who obviously draws in a great gust of air for the next phrase bespeaks the untrained and inexperienced. A good plan is to get wind after one sentence for the next. Radio speakers reading from a script frequently resort to the practice of marking the manuscript with diagonal lines, like this / between sentences or phrases when time can be taken for a deep breath.

Nervousness, excitement and stoutness greatly increase the shortage of wind. Illness, fatigue, speed of talking, and exercise also make the breathing necessary to speak too obvious. We all are familiar with the victorious boxer's breathy "Hello Mom." Anything which contributes to short-windedness such as smoking, lack of exercise, a bad cold, interferes with the possibility of speaking well. Breath control is a must for the singer and almost a must for ordinary speech. Practice deep breathing exercises. Good health, right posture also help, but much can be accomplished by deliberate practice.

### **KEEP YOUR NOSE CLEAR**

"Spri'g has cub" to the fellow with the head cold. "Spring has come" only to those who have unobstructed nasal passages, for these passages form an important part of the voice sound chamber. Persons affected with chronic catarrh cannot hope to have pleasing voices because they cannot rightly talk through the nose. You have only to have a friend talk while holding

his nose to get a clear demonstration of the important part the nasal passages play in good speaking.

### **RELAX THE SPEECH MECHANISM**

The musical, liquid tones of the Southerner, the nasal twang of the New Englander are directly related to the differences in their climate. The relaxing warmth of the South frees not only the nasal passages but also promotes a wide open relaxed throat. Nervousness and tenseness tend to tighten up the speech musculature just as they tighten up the leg and arm muscles of the green basketball team. We play golf better and we speak better when we are relaxed. Stuttering is an extreme example of the effect of emotional tension on the speech mechanism.

There is no place for the stiff upper lip or the tight jaw in speaking. The speaker to one or to a large audience must get hold of himself, he must deliberately control the speech mechanism including breathing. Only practice can insure good results.

The familiar tongue twisters provide a good practice medium for loosening the speech muscles although all normal speaking situations provide the best possible practice. The fact that tongue, jaw, lips all must move easily and surely for clear enunciation is made very clear when we try to say rapidly: "Sister Susie says she sells sea shells by the sea shore seasonally" or "She's sewing short shirts for sick soldiers."

### **YOUR TEETH MUST FIT RIGHT**

It's cute to hear youngsters of five or six trying to talk minus their front teeth. It's saddening to hear oldsters who have lost their upper plate. Many speech sounds make use of the teeth. These so-called "dentals" are *d*, *t*, *s*, *z*. Missing or maloccluded front teeth interfere seriously with correct speak-

ing and make pleasing speech impossible. If you have dental difficulty, the only advice which can be given is to see your dentist. The orthodontists have made great strides. They can do wonders, even with adults.

### **WORDS HAVE ENDINGS. SOME HAVE H'S**

Sloppy, slovenly, careless, low-brow speech is inexcusable and reflects on your parents and their friends. To say "j'eat" for "did you eat" or "d'ju" for "did you" is the result only of ignorance or obstinacy. In the same category is "goin'" for "going," "huntin'" for "hunting" and "kep'" for "kept." In the same way the *h* must be put into words when it belongs. "Weeling" cannot rightly be used for "wheeling," "wat" for "what," "wich" for "which" or "wen" for "when." Words do have form, substance, *h*'s and endings. To treat them carelessly is to run the risk of bringing on your head the general charge of a lack of cultural opportunity, or at the worst, sloppiness.

### **PITCH CAN AND SHOULD BE CONTROLLED**

"Johnny One Note" made a good song, but talking in a monotone makes very dreary listening. Pitch variations give to speaking the color and meaning which reveals mood and personality. So important is pitch that it is possible to detect fear or excitement when the words cannot be distinguished. Terror, fear and excitement are portrayed by high shrill pitch. In contrast, careful thought is usually couched in judicial low tones. Sadness and solemnity are carried by low unvarying pitch.

In general, a moderately low pitch is most pleasing for the major part of speech activity. What is moderately low will, of course, vary with different individuals. Women are commonly accused of pitching too much of their speaking too high, but nothing is more annoying than listening to a man whose voice



is too high. Testing one's pitch by comparison with the notes on a piano will reveal where the speaking voice is pitched.

### INFLECTION ADDS MEANING TO SPEECH

The glide from one pitch to another gives fine shading to speech. A *falling* inflection is used for simple statements, commands and to indicate determination. The self-confident coach talking to his men ends his sentences with level or falling endings. The period denotes a level or falling inflection. The question mark suggests a rising ending inflection. Say *Yes. Yes?* How is *Yes!* said? And *Y-e-e-e-e-s?*

A rising inflection or moving to a higher pitch at the end of a sentence shows doubt, questioning, uncertainty, surprise, wonder, sarcasm, astonishment, contempt. The simple word "oh" is commonly used with a rising inflection because it is employed to indicate these moods.

"To be or not to be," or "For Brutus is an honorable man" in the speech of an expert becomes more than a simple question or a simple statement. A great deal of practice is necessary to become an expert, but attention to inflection will pay rich dividends to all, for only by changes in inflection does speech acquire color and sparkle. The ripple of merriment brings a spontaneous change of inflection which makes the picnic spirit apparent to all passers-by.

A classic passage which shows what inflection can do is Shylock's question. Try giving it some inflection.<sup>1</sup>

Shall I bend low and in a bondman's key,  
With bated breath and whispering humbleness,  
Say this:  
"Fair sir, you spit on me on Wednesday last;  
You spurn'd me such a day; another time  
You call'd me dog; and for these courtesies  
I'll lend you thus much moneys?"

<sup>1</sup> William Shakespeare, *The Merchant of Venice*, Act I, scene 3.

### LANGUAGE HAS ITS TUNES

Speech is like singing because it has pitch and intonation. It is also like singing in that it has rhythm. Different languages have different rhythms. The Pennsylvania Dutch have a "sing-song" up-and-down rhythm. "The *milk* is *all*." In studying a foreign language it is frequently as difficult to get the "tune" or melody of the language as it is to learn the grammar and vocabulary.

The answer to the problem of time or when to put the stress in a sentence was systematized by a German phonetician, Professor Hermann Klinghardt. Barber describes and illustrates this system as follows: <sup>1</sup>

In considering these markings of Klinghardt it is to be remembered that an intonation group is a breath group and may be composed of a word, a phrase, or an entire sentence.

1. A straight horizontal line, called a measuring line, indicates the average pitch of the speaker's voice and is, therefore, a point of departure for both higher and lower pitch levels.

2. There are as many signs as there are syllables in the intonation group.

3. The stressed or strong syllables are represented by large dots, and the unstressed, or weak syllables, by small dots. Level or equal stress is represented by dots of the same size.

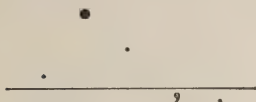
4. A syllable with a pitch higher than the average is represented above the horizontal line. One with a pitch lower than the average is represented below the line. Different levels above or below the measuring line indicate the degree of rise or fall in pitch of the syllables so placed. Syllables having an equal level of pitch are represented by dots that are the same distance from the horizontal or measuring line.

5. A syllable that has a rising inflection is indicated by a dot with a loop turned upward and to the left like an inverted comma (‘). A syllable with a falling inflection is shown with a dot and a loop turned downward as in a comma (’).

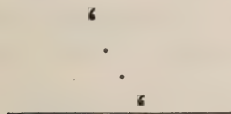
<sup>1</sup> Sara M. Barber, *Speech Education* (Boston: Little, Brown & Company, 1939), pp. 38-40. By permission.

Note the use of these markings in the following and see if you can express the ideas with the intonation intended.

1. He seeks to conquer.



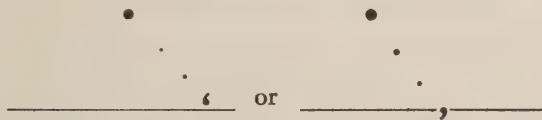
2. Sing, if you can.



3. Is she sure?



4. What is the noise?



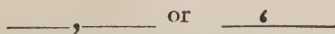
5. Has she failed?



6. Have you girls as well as boys?



7. Yes.



8. She is here.



### VARY YOUR SPEAKING RATE

The rate of speaking and variations in rate add much to the meaning of words and sentences. Each individual has his own accustomed rates. It is the changes in the usual rate that give the amplified meaning. The slow, labored speech of the sick, tired, exhausted person bespeaks the end-of-the-world mood he is in. The philosopher speaks deliberately rather than slowly and thereby shows his thoughtfulness. The salesman with his machine-gun delivery has time and money to make. In contrast, the sad slow notes of the funeral oration suggest the final steps to the gallows. The rapid lilting cadence of the merry-makers at the bacon bat carries to all the world the infectious gaiety of the holiday spirit.

### GET HELP IF YOU NEED IT

The student interested in developing an effective, pleasing speaking voice has two important college departments which he may consult. These are the department of speech and the department of dramatics. In some universities, these services are offered as part of the English department. The quality of the speaking voice is so important that no service which promises aid should be neglected.

### QUESTIONS AND EXERCISES

1. Say "Oh" three different ways to portray three different meanings.
2. "His big manly voice, turning again toward childish treble, pipes and whistles in his sound."<sup>1</sup> Find in literature similar quotations describing the voice of children, old age, the timid.
3. Using Klinghardt's intonation marking, put a typical English sentence into several different patterns: German, French, or

<sup>1</sup> William Shakespeare, *As You Like It*, Act III, scene 7.

Spanish; or use the sentence "Shall we go swimming this afternoon?"

4. Make the attempt to say the following phrases to sound judicial, painful, frightened, sad: "Don't rush me," "Have you been away long," "What is the latest news?" "Ends almost never justify means."
5. The salutation of each language portrays to some extent the temper of the people as well as the tune or phrasing of the language. Using Klinghardt's system of notation, contrast these phrases:

American

Hello

How do you do?

How are you?

French

Bonjour

Comment allez-vous?

Spanish

Buenos días

¿ Como está usted?

German

Guten Tag

Wie geht es Ihnen?

Italian

Buon giorno





PART 5  
Thinking



## 28 How to Think Your Way Through College

The fellow who first proclaimed that life is one dam' thing after another probably had in mind the fact that life is one problem after another in a long succession of decisions that have to be made. To what college shall I go? What fraternity shall I join, if any? In what shall I major? Shall I ask for a single room or double room in the dormitory? Shall I join the valet service and pay \$15.00 per semester to have my cleaning and pressing done? These and a thousand and one personal problems press for solution, for the major decisions of life from how to vote in the class elections to how shall I cast my ballot in the presidential election must be solved so that life may move on.

The sane, rational person thinks, that is, he mentally manipulates facts to arrive at answers to problems which cannot be answered by looking, feeling, tasting, smelling or by asking someone. Thinking must permeate all phases of life and particularly that of the student, for the world of the university is by definition a place where men are committed to reason rather than to tradition. Success in college requires the practice of many arts and skills. The supreme skill is the ability to carry on unbiased logical thinking.

### **USE READY-MADE ANSWERS WHENEVER POSSIBLE**

To say that life in and out of college proceeds most effectively when it is guided in important decisions by critical

thinking is not to imply that every act of life must be a thinking act. To free ourselves for careful thought about our studies, our citizenship obligations and our major personal problems, we can and should habituate the ordinary routine phases of living. To make a major problem out of "What time shall I get up tomorrow?" or "Shall I or shall I not brush my teeth?" is ridiculous. It is equally ridiculous to follow habit or tradition in deciding which political party to support in an election.

Extremes of habituation are not suggested. It would be a tragedy if the world should adopt the army uniform as a means of eliminating the necessity of thinking about what to wear. The idea of building a wardrobe out of suits and coats of matching shades of blue may, on the contrary, be a sensible time-saving procedure and also true economy, for all ties would match all suits and shirts and the whole wardrobe would be interchangeable.

Mankind has done a lot of thinking throughout his history. He has arrived at rules of conduct that frequently are supported by research findings. To make an issue out of whether to open the bedroom window at night is to complicate unnecessarily the business of living. Fortunately, much of the detail of getting through each day can be left to habit based on ready-made decisions.

#### **THE ACT OF THINKING IS NOT ALWAYS APPARENT**

What is commonly called intuition, a hunch, an impression, or a feeling may be the result of an act of thought so rapid and so short-circuited that the decision appears to come out of the air. The bridge expert decides to bid two spades on a particular hand. When questioned he may be unable to explain clearly why he made that decision. His evaluation of hands



may be much better than his explanations. His decision may be right; they have to be most of the time if he qualifies as an expert at bridge, and at the same time his explanations of his decisions may be wrong. The old family doctor collects data about the sick child lying on the bed; adds that information to all he has learned about the child since he brought him into the world; gathers in mind what he has experienced with other patients through the years, and calls for the ambulance to take the patient to the hospital for an emergency appendectomy two minutes after he has entered the house. The process of manipulating facts to arrive at the answer to the question of what to do was so rapid that the decision erroneously may be called intuition or a hunch. The doctor and the bridge player are experts. The expert is an expert to the extent to which his knowledge has progressed to enable thinking to be short-circuited.

This caution about intuition is given here because the admonition to "think" is too frequently taken to mean deep-furrowed, systematic, floor-pacing, ponderous, time-consuming story-book cogitation or ratiocination. Thinking of this heavy, deliberate, systematic type does go on and should, but most of life's thinking is much more casual and "intuitive." The student should not assume that he is irrational because he decided without great travail to ask for a room with a room-mate or to buy a ten-dollar maple chair for his bedroom.

### **TEXTBOOK STUDY CAN BE A THINKING PROCESS**

A lesson may be learned for immediate purposes when it is memorized. Stories are told of college students who memorized whole courses in mathematics without any real understanding. Such stories are probably exaggerations, but it is true that all too frequently the idea prevails that studying the

text is a process of trying to fix in mind or to remember what the author has said. The notion that reading the text three times is better than reading it only once arises from this mistaken notion of textbook study.

Texts are studied rightly when an attempt is made to follow and to understand the reasoning process of the author. Not all books present detailed material explaining the steps leading to generalization or the application of assumed generalization. Some books are, of a right, made up of straight description. Such books may be read and remembered. For texts in college, however, the right study process is most commonly a thought-following process. To dig out the steps in reasoning as set forth by the author of an economics text, for example, is in a sense easier than was the original thinking. When one considers the fact that the author is generally older and fully trained and more experienced than the student reader, it is apparent that the mental effort required of the student is much above a sponge type of absorption.

The students of physics and mathematics, in fact, of any college subject are not required on the undergraduate level to do much "original" thinking. The mathematics major does not devise formulae. He is required rather to follow the logic of the man who is presenting the derivation. The untrained person can be taught to substitute in a formula; the college student with the help of the texts and professors learns to derive the formula.

### THESE ARE MANY KINDS OR TYPES OF THINKING

Like so many words in language the word *think* is used to carry many meanings. "I think" may mean "I believe." "I think" may mean just day-dreaming. We mean we remember when we say, "I think we had marinated herring for lunch that

day." Many different adjectives are used to point to different aspects of the thought process or to different forms in which the result of the thinking is stated. Below is given a list of the common named thinking types with a word of explanation of each.

*Inductive thinking*—involves the making of a general rule, law, principle or generalization out of many specific details or examples or specimens.

*Deductive thinking*—involves the application of some rule or law or generalization to a particular situation or example.

*Original thinking*—used to describe thinking that results in procedures or explanations which appear to be very useful and different from what was expected.

*Guided thinking*—following the thinking of another as, for example, from a textbook. Both the writer and the reader must think. The student has the text to guide him, but after study the student should be able to apply the same thought process to different situations.

*Executive thinking*—thinking which results in decisions about what to do. Involves deciding a line of action, planning, making schemes. Looks forward, often involves procedures, devices, expedients, compromises.

*Speculative thinking*—commonly associated with the scholar, looks back to find out why. Seeks explanations. Adds to knowledge, but is only indirectly practical. Sometimes called pure thinking.

*Ideational thinking*—thinking which does not involve anything but words and ideas. Ideational thinking cannot be checked in the laboratory or by mock ups or models.

*Practical thinking*—thinking that results in decisions about what to do, similar to executive thinking. Sometimes used as the opposite of ideational thinking.

*Reflective thinking*—used to apply to all "real" thinking or the manipulation of data to find answers to questions. Sometimes used to mean ideational thinking.

*Logical thinking*—same as reflective thinking. May be used to indicate deliberate, observable thought process as distinguished from intuitive thinking.

*Critical thinking*—careful thinking. Opposite of sloppy.

*Straight thinking*—same as critical. Has some similarity to logical thinking.

*Sloppy thinking*—obvious errors are present. Too fast. Careless.

*Clear thinking*—same as logical. The steps, or the process is “clear” to the person who calls it clear thinking.

*Intuitive thinking*—short-circuited. Rapid.

*Pure thinking*—similar to reflective thinking. Pure mathematics and philosophy are commonly considered to involve pure thinking.

*Problem thinking or Problem solving*—associated with mathematics. Applies when question is sharply defined.

### ALL THINKING IS BASICALLY THE SAME PROCESS

This list of common so-called “types” of thinking should not give the impression that thinking is something different at different times with different people and with different types of problems. *Thinking is the mental manipulation of data to answer questions not otherwise answerable.* So important is this point that the following detailed explanation is in order.

*Mental Manipulation.* This phrase means that the facts are in the mind juggled, related, put side by side, or in sequence to find what they mean. Shoving the furniture around in the living room to get the most efficient arrangement is not a thinking process although the final judgment might be. The experimenter who tries out a thousand and one positions for the switch on his gadget is not thinking; he is “trying out.” When, however, he decides to form a company and to risk his life-savings to manufacture and market the gadget, he thinks, and for his sake, we hope rightly. It should be noted that models and diagrams may be constructed for some problems, but they do not of themselves answer the question. Such figures and models more often help to make the nature of the problem clear.

*Data* are facts or evidence which may be gathered from the far corners of the universe or from the dirt under our feet. Factors in the situation, which our inventor, referred to above, must consider include the cost of manufacture, selling



price, need for the product, whether enough capital is available to tide him over until the profits come in, and many other similar facts or factors. The thinking must be *mental* because the factors can't be physically shoved around to see if they make a combination which will lead to success.

*To Answer Questions.* All thinking starts with a question and moves to an answer. Why the stars and sun and planets stay in such fixed orbits is a question. All the information or facts possible are assembled by the Newtons, Einsteins, Curies and the others. They put their facts together in every possible way to find an answer to the question that will fit all the facts and known conditions. This process must be mental too, because these heavenly bodies obviously cannot be shoved around at will.

*Not Otherwise Answerable.* When a question is answered by looking, as for example, the question, "What time is it?" no thinking takes place. When you ask your professor if you will have an examination next Thursday, you don't think, you merely listen for the answer. Your professor may do some rapid thinking, for you may have raised the question in his mind, "Should I give a test next Thursday?"

### THINKING AND RELATIONSHIPS

In a very real sense all thinking is a problem of finding meaningful relationship between a related set of facts or factors. The philosopher can see a relationship between the ashes in his ash tray and the neon sign outside his window reading *Drugs Cut-Rate—Cosmetics* which annoys him by flashing on and off 45 times per minute. The problems of college studies and of life are frequently, in appearance at least, as far-fetched. More generally the very fact that problem questions arise in a context gives a clue to the line of relationship which will be most meaningful.



A simple example of this business of relationship can be taken from the formula  $D = \frac{M}{V}$ . This formula is a convenient statement of the results of much thinking. The student does not originate, but he does have to understand all the relationships involved. Simply to memorize the formula as a parrot might is not to study at all. If  $M$  is taken to equal 6 and  $V$  to equal 3 then  $D$  must be 2. The same factors of density, mass and volume can be said to be related in other ways as, for example, density times volume equals mass, or  $D \times V = M$ ; or  $2 \times 3 = 6$ .

The social sciences, including economics, education, and history, being new to systematic scientific thinking have not developed a body of accepted mathematical relationships comparable to that of the physical sciences. This statement should not be understood to cast any slighting reflection on the social sciences. Rather it should be clearly comprehended that whereas such things as density, mass, volume, pressure, temperature, angles, area, force of the physical sciences are readily measured, the more complex factors of traditions, cost, value, motive, attitude, opinion, number (of unemployed) are not. Furthermore the social scientists do not have such convenient forms of expressing relationship as ratios, fractions, proportion. It is therefore impossible to fix relationships as, for example, between the cost of a war and the cost of living, into convenient, readily demonstrated formulas or line graphs. The death of a national leader, or the all-pervading effects of the sun's corona, may introduce factors which in themselves are unmeasurable and whose relationship is almost as esoteric as the relationship which exists between ideas of good and ideas of the good life.

It is clear, however, that in both the social sciences and the physical sciences including mathematics, much of the student's

thinking is concerned with seeing relationships and of understanding the conclusions such relationships will support. The student should ask himself time and time again: What are the factors or facts involved? How are these facts or factors said to be related? What conclusion, what formula, what rule will this relationship support?

### NEED FOR THINKING IN THE SOCIAL SCIENCES

War is the process of settling problems of national relationship on the cave-man level rather than on the adult human level of rational thinking on problems of relationship or values. Intelligent living demands that such things, value (of human life), sovereignty, armament, conscription, territory, prestige, national dignity, cartels, extra-territoriality, empire, and a host of others be seen in proper relationship and that right conclusions be arrived at. If at once it is admitted that social values have nerve endings and are not amenable to accounting-house methods, that is not to say that the calm, friendly, coöperative thinking through of these relationships is of no value. So long as mutual respect and encouragement among the several schools and departments on the university campus is not an accomplished fact, just so long will most men of good-will despair of the hope that reason will triumph in the inevitable conflicts between worker and owner, big power and little power, big power and big power, the city and the county, up-state and down-state, the North and the South, the yellow and the white. If, as John Dewey has said, even personal morals are a matter of right thinking, then the greatest challenge of any age is the extension of the sway of clear thinking over the field of human relationships. The release of energy by atomic fission puts the problem of whether the earth shall be a garden or a graveyard squarely up to man, who has thus far, at least, not deserved the self-assigned label *Homo sapiens*.

## QUESTIONS AND EXERCISES

1. Make a list of habitual or traditional or sectional biases commonly and wrongly used as a basis for important decisions as, for example, the people of Maine voting Republican and the people of Texas voting Democratic.
2. Is substitution in a formula thinking?
3. Be a philosopher. What relationship can you see between a flashing neon sign and cigarette ashes. Try again. What relationship would there be between the sore feet of a man and World War II?
4. Pick a chapter in an economics book or sociology text at random and try to express the facts and generalizations of the chapter into formulas, graphs, equations.
5. How does the picture, cartoon, diagram, table, compare in definiteness with the equation, formula, ratio, proportion?

## 29 How to Think

The art of thinking successfully is the crowning achievement of eons of biological evolution. The real facts are not known about what goes on inside the human brain when answers to questions are sought. In complete honesty, it must be admitted that it is not entirely clear that thinking is confined to the brain. Somehow in the complicated mechanism of mind and nerves and glands, meaning is comprehended. To describe accurately what goes on when you try to think of a seven letter word beginning with *a* and ending with *e* meaning "greed" is beyond the ability of science.

It is possible, however, to suggest some conditions and procedures that apparently facilitate the reflective process. It should be clearly understood that no formula can be supplied guaranteeing success. The answer to such a simple question as why one student gets answers to questions faster, can remember longer, and phrase his own questions better than the others in the class is not now fully known. This condition should not discourage the student anxious to succeed, for effort is a constant element in success. That student who feels slower, less apt, less bright than his fellows can be encouraged, for the race is not to the quick so often as it is to the steady worker. Fortunately success in college is a four-year proposition, a time long enough to make it possible for effort and staying power to count.

**A PROBLEM WELL STATED IS HALF SOLVED**

The straightforward simple statement of a problem as, for example, "What shall be my life career?" is not always a good statement of the question. To be well stated, a problem question must get at the essential doubt. The career question above involves ability, interest, time, and money available for training; the start the family can give; the type of life the questioner most enjoys; health and physical fitness and a host of other factors. Not all of these elements need to be employed in the first statement of the problem question. They may be included as sub-problems, but should form a part of the complete statement of the problem.

In other words, a well-stated question is inclusive, whatever its grammatical or schematic form. The formal debate recognizes the urgency of this condition by requiring that both sides agree on the two or three main issues. Only by such agreement can the two sides to the debate hope to come to a meeting of minds. The common fault of most radio round-table discussions is that they do not adequately state the problem or topic for discussion. "Shall the federal government establish a wages-and-hours formula for all types of employment?" involves many questions as, for example, centralization of governmental control, the fostering of unions, and the like. Who will administer such a law? What will the formula be? Different members of the round-table introduce constantly different phases or aspects of the main question, and inevitably talk at such cross purposes that the discussion gets nowhere—except that it may stimulate public thinking.

The statement of a problem question is well stated only if it is an honest statement. "Shall I go to the homecoming dance?" is not a fair question if you have already decided to go. What might be more honest is to ask, "Why have I decided



to go to the homecoming dance?" Dishonest personal questions lead to the bad habit of supplying good reasons rather than real reasons.

Frequently problem questions have to be restated as the gathering of data proceeds or as sub-questions are raised and answered. It is not unusual to have scientists start out to answer one question, wind up by answering another, and still make a real contribution to human knowledge. The question, "What effects does the removal of the pancreas have on the total behavior of dogs?" led to answering the immediately more practical question, "How can the debilitating effects of diabetes be ameliorated?" What started out as a part of a systematic attempt to find out how different organs affect life ended by answering a very important medical question. In the same way the question, "How can insulin be synthesized?" might lead to the answer to the question of how to get absolute zero.

Time spent in stating and restating the problem question being used as a research theme topic is time well spent. A fruitful device is to state specifically what is not included, what you do not want to know, what you are going to leave out. The topic, "What are the effects of war?" would require a lifetime and volumes to answer. It must be limited to serve as a semester or year topic. To state what is not included will make clearer what is included. This step in problem statement is sometimes called "delimiting the topic."

### INFERENCE IS CRUCIAL

When faced with any problem, progress is blocked absolutely unless there are some suggested answers that can be checked. It is not important that right answers or nearly right answers come to mind at first. Good thinkers are good in large part because they are fertile of ideas. The research scientist

finds only a small fraction of his suggested answers to be correct. The waste involved is not important; the crucial point is that there must be fertility of suggestions. When you don't know where to start, you are really stuck. The visitor to the crowded city faced with the problem of finding a room for the night, who stands in the station completely at a loss where to begin is indeed lost. Many popular parlor games are based on the idea of guessing from word or pantomime clues what the solution is. The person who can't think of any possibilities is a poor team mate.

The fertility of suggestion depends in large part on breadth of knowledge in the field of the problem, willingness to hazard a guess, and the ability to find words or vocabulary. Obviously the frequent traveler will have more ideas on where to sleep than the youngster down from the farm for the first time. In the same way the guidance counselor is a good source of ideas on many personal problems simply because he has met hundreds of questions all in the same general area of living.

Breadth of knowledge can be acquired by reading as widely as possible on the problem up for solution. If the problem is concerned with the elimination of the toxic effects of a useful insecticide, the student can read up on toxicology, poisons, and antidotes for poisons. He will not, of course, find the specific answer, for if he did he has no research problem. He will get some ideas that suggest possible answers. It may appear to be a confused business to try three and four thousand times without success as Edison is said to have done to find a lamp filament, but except for very simple problems thinking is rarely a straight line to the answer.

The thinker must let himself go, relax, get started on possible solutions. The suggestion may sound silly, but only by trying can the answer be found. Who would have thought that the way to save lives was to eat garbage? Such a suggestion

would have been laughed at, had not accident under the eyes of a trained worker in food chemistry showed the way to vitamins. This fact of willingness to make a start, to advance suggestions, however silly, is what accounts for the fact that so many men of genius were laughed at and, in the early days, persecuted. The student must not be reticent, shy, afraid, or timid about the important matter of having ideas.

The ability to have good ideas depends upon the extent of knowledge and willingness to let ideas be known. The person of limited vocabulary cannot express his ideas. What is more important he will have fewer ideas because words are the media by which we think and by which we express ideas. Other things being equal, the person with the large, rich, sure knowledge of the meanings of words will be most fertile of suggested solutions. There is a group of psychologists who maintain that thinking is really sub-audible and sub-vocal talking. When we think alone, we are really talking to ourselves, making suggestions, rejecting suggestions. The lesson for the student who would succeed is clear—develop a large stock of usable words.

### **CHECK SUGGESTED SOLUTIONS TO PROBLEM QUESTIONS**

All the many possible answers which come to mind must be checked very carefully in order to determine the right answer. In some instances the right answer seems to pop into mind without apparent effort, as in the case of "intuitive" thinking. Complex problems as, for example, what causes arthritis may lead the investigator up many blind alleys. In fact it may require the services of a whole corps of scientists to follow many false clues before the final solution is found. All possible, likely leads must be carefully checked.

In the same way simple problems as how much money can

safely be invested in advertising the Red Cross benefit basketball game must be checked, but the checking is immediate and is "natural." Some important checking or estimating can be done before the event but not until the proceeds are all in can the final check be made.

It may be a vulgarism to say "check and double check," but the idea of making as certain as possible is a good one. There is nothing new or mysterious about this, for all students have been taught since the third grade to check their arithmetic homework.

Mathematics problems can be checked by looking up the answers in the back of the book or by following the demonstration at the next class meeting. Or a group of students working independently can compare their results. If all get the same answer, then they can be fairly certain that answer is right, although here again a double or second check may reveal the fact that they all neglected to consider one important variation and hence all have made the same error. Answers to mathematical and financial problems are relatively easily validated. Simple exercise problems in the science text also can be easily checked. Actually much class work is given over to this correcting process. To check answers to important, complex mathematical, scientific, social and personal problems is quite another story.

Several general rules can be suggested for attaining some degree of certainty that solutions to such problems are reasonably accurate. It is in this connection that the essential tentative character of all problem thinking is revealed. The answer to the question of how to attain healthful temperance in the use of intoxicants was thought by some to have been found in a national prohibition amendment. Some persons still are convinced that is the only solution to the problem. After some twenty years of prohibition, other possible solutions were



tried. The problem is still unsolved. The final solution of any problem must satisfy all or several of the following conditions to decrease the tentative character of the solution and increase the amount of certainty.

1. When all or almost all competent observers *agree*, then the solution may be accepted as good. So long as men of equal integrity and competence disagree violently, then the validity of the answer must be considered doubtful. But care must still be taken not to give up conclusion too easily. Galileo, even when right, was forced to recant when he stood alone against the wisest men of his time. In general, however, the *rule of concurrence* stated above can be followed.

2. A problem can be said to be solved when the solution *works*. If, for example, the prohibition amendment had made the people of America non-drinkers, then no matter what the academic theories might have been the results justified the praise, "well done." In the same way, the answer to the question, "What furniture shall we buy for our living room?" is answered rightly if the family agrees that the furniture purchased serves its needs.

3. A question can be considered solved if it does not *do violence* to known facts and conditions. The answer to the question how to cure schizophrenia may be thought to lie in strong shock. If, however, the cure produces ailments worse than the disease, then no good solution has been found. In the case of prohibition, the development of gangsterism was so great an evil that the experiment was thought by most of the people of the United States to be worse than the disease. The question of what furniture to buy may be beautifully solved; all conditions of artistry and utility may be met. If, however, the money outlay leads the happy couple to neglect buying needed food or medical attention the question was not rightly answered.



4. A question can be considered solved and the thinking well done only if the solution selected is the *best* solution. To plan a route of travel from home to Alaska can be easily done if time, convenience, money and pleasure are not important. Since these items are usually of considerable importance, the travelers have not finished their thinking until they have the best possible route for the time and money available and in consideration of the fact they want to see Aunt Minnie and Yellowstone Park.

This emphasis on perfection is not to deny that makeshifts have their place. It is possible that a bookcase and study desk made out of six unpainted orange crates may be the best possible answer to the need for adequate study facilities. The perfectionist is an annoying fellow to have around most of the time. There does come a time when dressing for a date when we must say "good enough." The danger to good thinking and good living comes as often in setting standards too high as in setting them too low. The story is told of the professor who never published a line of his writing and confided in only a few choice friends because he was aiming at standards set by the great masters. He would not publish his novel unless he could feel it would be *the* great American novel. Each person is entitled to his personal standards, but there is no need to be foolish.

#### **HANDLE GENERALIZATIONS WITH CARE**

Generalizations are the stuff men live by. Our minds are filled with generalized conclusions about life. We each have our own set of beliefs about health, sports, races, politics, women, men, morals, and the income tax. The wisdom of the ages is distilled into general statements of conclusions. Surprisingly, the generalizations about important problems of life run much the same in all times with all peoples of all countries.

Many such distilled capsules of wisdom are contained in the axioms or proverbs of a people. We in America believe that it never rains but it pours, a stitch in time saves nine, hell has no fury like a woman scorned.

Since most generalizations are arrived at without the benefit of systematic thinking and the salubrious checking of honest minds, the general caution to beware of generalization cannot be too strongly stated. In casual conversation hasty, sweeping, broad generalizations spice the discussion. To indulge in the same luxury in serious study or thinking about important problems of life is to enter the ranks of nincompoops.

Not all old dogs have the inability to learn new tricks. Salt tablets are not good for all people in hot weather. Shaving does not make hair stiff and coarse. Not all Englishmen are aloof and without a sense of humor. Not all donkeys are stubborn. The list of generalizations that are not based on cold scientific facts could be multiplied a thousandfold. In general the student will be well advised to look with suspicion upon all generalizations. It may be true that the universe is expanding, but until all the data are in, it is smart to say, "Some scientists think..." Care should be taken especially with generalizations which contain or imply words like *always*, *never*, *all*, *few*, *you must*, *invariably*, and the like. To say that all men are beasts or that all women are selfish is to talk nonsense, as arrogant as to say always stuff a cold or all wars are bad.

This label "handle with care" should be applied to generalizations regardless of their source. Especially is this true of men talking outside their field of specialization. Generalizations about the heavens made by an astronomer or about literature made by the English professor probably have more validity than if the sources were reversed. When an industrial-

ist makes pronouncements about peace making, or a biologist expounds on taxes, look out!

Students have the right and the duty to make generalizations. In fact the content of many courses can be summarized in a series of general statements or generalizations. It is neither cowardly nor spineless to add what might be termed "weasels" such as "most of the time," "it appears possible," "with the information at hand," "for the time being," and the like to most of our generalizations (except, of course, when passing a pleasant evening of chatter before that fire place). The mark of the liberally educated is the extent to which he is not at all certain. In a very real sense, health and happiness and life itself may some day depend on the generalizations you live by and promulgate. Handle them with care.

#### QUESTIONS AND EXERCISES

1. State the problem question, "For what career shall I prepare?" as completely as you can.
2. Compare the two topics, "How to Study in College" and "How to Succeed in College." Which is broader? What would be included in one and not logically concerned in the other?
3. Look up the following terms in an unabridged dictionary. Write the definition in your own words and add an example or illustration of each.

Solution	Guess	Inductive
Resolved	Problem	Deductive
Inference	Generalization	Creative

4. "All dogs have four legs." Is this statement true? If not, rephrase the statement to conform with the facts.
5. Find examples to illustrate the following terms:
  - Post hoc ergo propter hoc*
  - A priori argument
  - Presumptive evidence

## 30 How to Make Judgments

Whenever alternatives present themselves to us from which we have to make a choice, then we make a judgment. The making of judgments always involves choosing the best, largest, smoothest, sweetest, healthiest, and so on through the list of English comparatives and superlatives. There is no escape from this type of thinking activity. All through life "we pay our money and we take our choice" whether it involves the selection of a dessert in the cafeteria or the choice of a career. Success, happiness, character, even morals depend ultimately upon the wisdom or stupidity with which we make our judgments.

Many professions call for special skill in making judgments in special fields. The drama critic, the book reviewer, art dealer, editor, officials or managers who employ personnel all have to make judgments as an important part of their work. The instructor makes many judgments of written papers, of the value of content for the course and the worth of students. There are indeed few professions and few college courses that do not require good judgment for success.

So important is the making of decisions among alternative choices in life and work that a main cause of much psychological maladjustment is to be found in the struggle to choose the best. Sometimes, frequently in fact, persons find themselves "between the devil and the deep blue sea." Even dogs can be driven into neurosis if they are faced with impossible decisions.

The dog trained to jump into a steel drum for food becomes confused when he finds the cover on the drum or if he jumps at the learned signal and gets a violent electric shock. He literally will not know what to do and will, if the treatment is long continued, give every evidence of a mental breakdown. Sometimes *any* decision is better than no decision.

Students have many important choices to make. First of all they decide to go to college, then to what college, then in what department to major; they also have to decide in what extra-curricular activities to engage, what person to date, how much to study, and a thousand and one other things. All these decisions are important, for a wrong choice or poor judgment at any fork in the road will to some extent lessen chances for success. This chapter is written to make clear the place of judgment in intelligent living and to suggest ways of attacking the problem of making judgments and some of the pitfalls to be avoided.

### **GOOD CITIZENSHIP IS MEASURED BY GOOD JUDGMENT**

The measure of man's freedom is the extent to which he is permitted to make his own decisions. Democracy, in contrast to totalitarianism, gives the individual large personal choice. The ignorant, the uninformed, the tired, the lazy, the spineless, look longingly for a dictator to tell them what to believe in, what to wear, and where to live. Only the strong are fit for democracy, for the essence of the democratic way of life is the freedom to make and stand by one's own choice for good or bad.

All persons in a democratic organization help to decide problems of policy and personnel. Americans vote for or against prohibition, child labor, a curfew, paved streets, new schools, bond issues, and political candidates. The right to vote



is the right to make judgments. The extent to which a free vote is extended to the many is the measure of the extent of democracy.

It will be argued, and rightly, that on many momentous issues the American people do not have a direct vote. The decision to use the atomic bomb, or to wage war, or to level a capital tax is not made by the direct vote of the people. The institution of representative democracy simplifies for the citizen the making of judgments by centering most decisions in the choice of elected candidates. The fact remains that these elected representatives cast their vote in terms of their interpretation of the collective judgment of their constituents. There is, therefore, no escape in a democracy from the responsibility of forming judgments on all important issues.

#### **JUDGMENTS ARE PERSONAL**

Decisions made for the individual by authority either political or religious do not, of course, call for mass thinking and are usually public. Decisions made in accord with demonstrable fact also do not call for judgment by the individual. To believe that a particular ceremony has special value in promoting the good life because the fraternal or political organization to which the individual adheres has taught such a belief is to accept ready-made decisions. The individual is not free. In the same way decisions dictated by inescapable objective evidence, as, for example, an infected appendix that must be removed, takes from the individual the right to decide for himself.

The fact still remains that in a free society most of life's decisions rest with the individual and are personal. No formal authority, religious or scientific, dictates our choice of life partners, literature we enjoy, careers we enter, or any of the important life decisions. In the areas of personal taste, personal

living, the artistic, recreational, absolute sovereignty rests with the individual.

No one can authoritatively question your taste in food, drink, art, literature, clothes, friends. If you are partial to the color red, or pie à la mode, or Keats, that settles the question. The only person in this world who can decide such things for you is you.

### **BEWARE THE COWARDLY CHOICE**

In rare instances it is no intellectual disgrace to make decisions by the chance landing of a coin. To go to the Palace rather than the Strand for a movie because the quarter came up heads is not too reprehensible. But only the coward would base the choice of a career on such an ignoble basis. Mankind has tried the picking of straws, used Ouija Boards, Delphic oracles, the reading of tea leaves, dictatorship, and numerous other dodges to escape the responsibility for his own decisions. All such devices negate the dignity of the individual and deny any faith in human intelligence.

The thought that any decision is better than no decision or even continued consideration is oftentimes appealing, as when shopping for a gift for one's mother-in-law has been overextended. Thinking can be extended to the point when brave men suggest an "eeny, meeny, miny, mo" basis for decision. The fact remains that the turn of a card, the flip of a coin, or the "leave it to George" and similar techniques deny the importance of the decision and underscore the spinelessness of the "milk toast" individual who uses them.

### **BEWARE OF SNAP JUDGMENTS**

To decide important issues or to make important judgments too fast is a dangerous and annoying practice. The doctrine "give every man a chance" is in key with the principle of fair

play. To decide on the first day that you do not like Professor X or that economics is a bore is not worthy of anyone who presumes to be intelligent. Such decisions are on the same level with the child who decides he doesn't like French pastry without ever having tasted it. The withholding of judgment until all the facts are in is a trait that should be assiduously cultivated. Surrealistic painting may not appeal to you, but don't render a mature and final judgment until you have at least given it a chance.

### BEWARE OF INDECISION

"Too oft the native hue of resolution is sicklied o'er with the pale cast of thought." The child clutching his penny before the candy showcase, unable to decide on what to venture his wealth, is appealing to superior adults, but when they find themselves faced with tough decisions, they cry for help. The man of decision is admired. He who steps up to the cafeteria counter and promptly calls for roast beef, mashed potatoes, cole slaw, and dark coffee is at least a momentary hero. The dawdler and the fence straddler is not loved except by those who hope to win his allegiance. The executive making important decisions without a moment's hesitation is a popular American ideal.

But the capacity for decision is come by hardly because the fear of a wrong step, the fear of losing, the fear of appearing ridiculous, keeps most of us from deciding until events force the issue. The human will is easily puzzled, the dread of casting the die, the fear of the tide at the flood, costs many fine opportunities. The woods are full of men who *almost* bought Boeing stock at 15, who had a notion to take an option on the 101 acres which now has become so valuable. The capacity to decide promptly is a trait universally admired; fortunately it is acquirable.

### THE BASIS OF GOOD JUDGMENT

To avoid snap judgments, to avoid abulia, to avoid the coward's way to decision, to avoid floor pacing, nail chewing, and worry when important decisions have to be made is not always possible, but proper attention to the basis for judging will eliminate many of the difficulties. By definition, a judgment is a decision made with reference to acceptable standards. When judging anything from poetry to beauty contestants there must be reference to an implied or explicit standard. The common practice of giving a score card suggesting so many points for each element in a diving contest is in accord with this fact.

The basis of all judgments must be with reference to some standard. When the standard is thoroughly understood, then judgments are half made. For prize speaking contests, stock judging, diving competition, and even for poetry, standards may be easily agreed upon. The difficulty inherent in decision about vocational choices and politics is in setting up acceptable standards. The first step, then, when faced with any important judgment situation, is to set up standards by which to judge the worth or value of the alternatives.

### SYSTEMATIZE THE WORKING OF JUDGMENTS WHENEVER POSSIBLE

Assume for example, that we face the decision as to which of several planes to buy. Shall we purchase plane *A*, *B* or *C*? There is no call to pace the floor in worry; rather we should begin setting up standards. We begin to form a chart. We read the literature put out by the several manufacturing companies; we talk to the salesman. All the information we can gather is systematized for convenient use. Terms like useful load, baggage space, cruising range, rate of climb, are hurled at us in a

bewildering barrage of sales talk. The only way out is to make our own system. Thus we start a chart, as follows:

	<i>Plane A</i>	<i>Plane B</i>	<i>Plane C</i>
Horse Power .....	65	85	115
Maximum Speed.....	85 MPH	107 MPH	120 MPH
Rate of Climb .....	700 FPM	750 FPM	850 FPM

We soon find that the number of items to consider is so large and the variation among the available private planes is so great that we need to improve our chart. We need a system to use to record our judgment on each item. Therefore we assign points to each item in terms of its importance. Then each model is rated on the number of points it earns for each item. Obviously the best buy in our price range will be the plane that gets the most total points. Our chart looks like this when we are well started on deciding which plane is best.

ITEM	COMPANY A			COMPANY B	
	<i>Standard Point Value</i>	<i>Fact</i>	<i>Points Credit</i>	<i>Fact</i>	<i>Points Credit</i>
Model .....	x	No. 1	x		x
Cost F.O.B. ....					
Items * are extra....	x		x		x
Engine					
Air Cooled .....	x		x		x
Liquid Cooled ...	x		x		x
Horse Power ....	100	75	x		
Pounds,					
Empty Weight ...	x	750	x		x
H.P. Weight Ratio..	200	.100			
Useful Load, Pilot..	5	170	5		
1st passenger .....	10	170	10		
2nd passenger ....	20	No			
3rd passenger ....	40	No			
4th passenger ....	80	No			
5th passenger ....	160	No			
Gals. Fuel .....	10	23			



ITEM	COMPANY A			COMPANY B	
	<i>Standard Point Value</i>	<i>Fact</i>	<i>Points Credit</i>	<i>Fact</i>	<i>Points Credit</i>
Weight Fuel .....	x	138			
Gals. Oil .....	x	1			
Weight Oil .....	x	7			
Pounds Baggage ....	75	65	30		
Gross Weight .....	x	1320			
H.P. Gross Weight Ratio .....	300	.056			
Fuel Mileage per gal.	50	22	40		
Miles cruising range.	75	500	50		
Cruising speed, M.P.H. ....	20	110	15		
Minimum speed No power .....	300	48 mph			
Full power .....	300				
Top speed, M.P.H..	20	122	10		
Rate of Climb, F.P.H.	30	750	20		
Top Altitude in Feet	200	14,000	200		
Two Way Radio...	75	No			
Tricycle Landing Gear .....	50	Yes	50		
Spin Proof .....	100	Yes	100		
Stalling Speed .....	75	(Will not stall)			
Landing Strip re- quired .....	150	ft.		ft.	
Take Off Strip re- quired .....	150	ft.		ft.	
Lights: cruising, tail and rear .....	10	Yes	10		
Landing .....	30	No			
Interior .....	10	No			
Instrument .....	20	Yes			
Baggage space .....	10	Yes			
*Luminous Panel ....	100	Yes			
*Reclining seats.....	50	No			
*Upholstery .....	50	Yes			
*Automatic Wind- shield Wiper ....	50	No			
Total .....					

Not all decisions merit such detailed systematization. The fact remains that, whenever possible, with important decisions, some such careful attention to standards and to systematization should be employed. There is no other way to avoid worry and confusion.

### POOL SEPARATE JUDGMENTS

Two heads are frequently better than one. It is no crime to get help in making important decisions so long as we do not ask someone else to make them for us. The reasonable man goes to the expert for opinions. In purchasing an airplane the professor of aerodynamics should be an authority. In deciding whether to submit a poem for publication, the English professor will be an authority. Universities commonly have experts in everything from job selection to posture difficulties. Only the obstinate person would neglect to use all the experts available. This conclusion is not to deny that the final responsibility rests with the individual. Do not expect anyone else to make decisions for you. Experts can help, but in an imperfect world, there is no substitute for personal responsibility.

### QUESTIONS AND EXERCISES

1. Which of the following questions are questions of fact, which are questions of judgment?
  - a. Which suit is best?
  - b. What time is it?
  - c. For what vocation shall I prepare?
  - d. Should atomic bombs be used on an aggressor nation?
  - e. Who are the ten most important persons in the world today?
  - f. What is the relation between the area and circumference of a circle?
  - g. Was A. E. Housman a great poet?
  - h. Will whiskey cure snake bites?
  - i. Are men smarter than women?

- j. Are the French more emotional than the English?
- k. Does the speed of a falling body equal  $g^2$ ?
- 2. Develop a score card for judging the value of a newspaper editorial. You will want to include such items as literary style, clarity, persuasiveness, timeliness, and so forth. Include a system of numerical ratings.
- 3. If you found in a letter of recommendation this phrase: "He has good judgment," what would you take the phrase to mean?
- 4. Look up the word *opinion* in an unabridged dictionary. Outline an essay on the word.
- 5. What is meant by the term, *pre-judge*?
- 6. Distinguish between *quantitative* and *qualitative* judgments.
- 7. Is a *tall* man always tall?

## 31 How to Organize

A special type of thinking is that which has for its end-product the organization of ideas, the classification of specimens of mold, the arrangement of the furniture in a room or the systematization of the steps in a process. This special process is called *organizing* and is valuable alike to the student, the housewife, the business executive. Large offices, schools, and colleges go to the trouble of devising many forms and even to the expense of having them printed on different colored paper to aid in organizing information. When it is considered that a book out of its allotted place in the library is truly lost, or a letter out of place in the office file is lost, the importance of mere physical organization becomes apparent.

Everything from fingerprints in the Federal Bureau of Investigation offices in Washington to the furniture in your room has some kind of organization. Literature is classified into types, insects are classified into species, colleges are divided into departments, people are classified as to race, names in a telephone book are arranged into alphabetical lists. Wherever one turns some classification is met, for only when groups of things are properly classified can they be found and be understood.

### **SELECT THE PROPER BASIS FOR THE CLASSIFICATION**

All systems of organization must have some logic. The logical system should be based on some observable character-

istic. If that is not possible, then no organization is possible; for the key to organization is a system easily understood by the user. The chapters of a book, for example, are placed by necessity in some order. Somebody, sometime, has to decide what comes first, second and last. Books, speeches, art objects, architectural forms and every other group of things in life must have some comprehensible basis of classification.

It is impossible to give here any of the *special systems* in which every set of things from shorthand characters to locomotives is classified. Each subject, each department in which you are studying will use its own special systems. There will, for example, be a special classification of textiles for home economics students and a special system of classifying games and sports for the physical education major. Below are suggested some of the more common *general systems* of organization and classification.

### **SOME GENERAL SYSTEMS OF ORGANIZATION**

*Similarity.* In a theme outline on World War II, for example, the student might have a section on background, another on causes, a third on results, a fourth on peace settlements. On the same basis of similarity, the clothing store puts sport jackets in one place, tropical worsted suits in another, and raincoats by themselves in some other part of the store. Classification by similarity is one of the most common and most useful of all systems.

*Time Sequence.* In operations such as assembling a coaster brake or landing an airplane, events come in a logical sequence of time. The term *steps* or *sequence* is applied to operations such as the two named. When the time span is longer, as in history, the term *chronological* is used.

*Convenience.* The furniture in an office, the controls of a plane, the books and pens and paper on a desk are arranged for convenience, for ease of use, and to save lost motion. Frequency of use often determines position as, for example, when pens are found in the center of the desk, a dictionary on top toward the back, paper at the left or in the top left-hand drawer. (Left-handed people are very conscious of organization for convenience, for tele-



phones, car radio dials, fingers of baseball gloves are made for the most efficient use by right-handed people.) Industrial designers and production engineers are specialists in arrangement for convenience.

*Place.* Place location is a frequently used system of classification. The words *near, far, east, west, north, south, latitude, longitude, up, down, right, left*, all indicate place classification. The head coach will assign all backfield men to the southwest corner of the field, ends some other place. He is using place classification. Sociological surveys, geographical studies, political and industrial analyses frequently contrast conditions in cities of different areas. Many geographical tables group the data into areas as *northeastern, central, Pacific, southern*.

*Degree.* The amount or degree of some measurable quality or characteristic is a very useful basis of classification. School children are oftentimes segregated into classes in terms of the amount of scholastic aptitude; metals are classified according to hardness; apartments for rent are listed in terms of cost per month.

*Importance.* Points in an argument or a theme may be classified as to their importance. Usually the most important is placed last. Exceptions to this usual order are noteworthy as, for example, the famous "For God, for Country, and for Yale."

*Newspaper System.* News reporters have a very useful system that can be applied to many other types of writing and speaking. This is the famous *Who? What? When? Where? and Why?* This classification is used by reporters because it is most applicable to events and happenings. Who gave a party? When and where was it? What kind of party? What was the occasion for the party?

*Artistic.* At times as in arranging flowers, furniture, objects on a mantel, or elements in a painting, the basis of arrangement is sought in harmony, balance, relief.

### **ANY AGREED SCHEME OF ORGANIZATION WILL FREQUENTLY SERVE**

The exact order of parts in an outline or in a list or in the steps in an argument is sometimes of no great importance so long as there is a decision made. To argue whether the collegiate dictionary should be at the right or the left of the foreign-language dictionary is obviously silly. Purists and those who want to escape fundamental challenges sometimes find a way

out by extended discussion of class names or order. It should be stated emphatically that to miss the right classification of a lever or gear or a poison is inexcusable but that is not to deny that oftentimes any agreed order will serve adequately as a basis of work.

In seeking a classification of the common activities of man for use in a sociology seminar, health, earning money, using money, relations to government, informal relations with people, recreation, religious-philosophical, home and family might be suggested. A much better classification could be devised. One could make a life work of this problem, in fact someone should for the sake of all the social sciences. For immediate practical purposes any reasonable classification of man's activities such as that suggested above will serve. All this is to say that frequently the important thing is to get some, almost any, workable classification, then get on to the main job.

### THE OUTLINE

Students meet the problem of organization most commonly in the outline. Outlines are made of reading done, for talks to be given, and for themes to be written. The outline is simply a plan or a guide. In the outline for a speech, the main points are listed in the order in which the speaker wants to present them. Under each are a few words to aid in recalling the material under each main point.

Some college professors, particularly in English and the social sciences, make a great deal of use of the outline. Those professors will supply their own system of notation and designation. Outlines as a special type of organization follow a definite form.

1. A standard uniform system of designating parts of equal worth and subordination should be used consistently. Below is given a useful system.

- I. A Main Point or First Division or Part
  - A. First sub-point
    - 1. Second subordination
      - a. Third subordination or data
      - b. Second point of the third subordination
        - i. Fourth subordination
        - ii. Second point of the fourth subordination
    - 2. Second point of the second subordination
  - B. Second sub-point
- II. Second Main Point or Division or Part
  - A. First sub-point
    - 1. Second subordination
    - 2. Second point of the second subordination
  - B. Second sub-point
- III. Third Main Point

2. Points of equal importance are indicated by the fact that they are equal distance from the left-hand margin. The Roman numerals in the above outline form are of approximately equal value. In the same way the capital letters indicate sub-points of equal value. In any level of subordination as I, A, 1, or a, points of greatest importance are placed last. If in an outline there are points I, II, and III, the III point is the most important if any one is more important than the others.

3. Be consistent in grammatical form.

<i>Right</i>	<i>Wrong</i>
Systems of Political Government	Systems of Political Government
A. Monarchy	A. Monarchy
B. Oligarchy	B. Oligarchy
C. Democracy	C. Democracy is the best

4. Avoid too great subordination. Thinking is rarely precise enough to merit the use of third and fourth subordination. Except for very special work you can forget the small letter and the small Roman numerals. A safe guide to general use is

to have a part in the outline for each paragraph or section of the speech or theme. In special exacting work each paragraph may be outlined in detail.

5. Single sub-heads are not helpful or good form.

*Right*

- I. Modern Historical Novels
  - A. *Gone with the Wind*
  - B. *Northwest Passage*

*Wrong*

- I. Modern Historical Novels
  - A. *Gone with the Wind*

6. Follow the system of outlining most useful to you except, of course, where you have specific directions. An outline is a tool, not an end in itself. Frequently a word list makes a useful outline. In fact, telegrams, telephone conversations, and letters can be outlined by a simple series of words. It is better to organize thoughts well than to spend needless time recording points in an outline.

### QUESTIONS AND EXERCISES

1. It has been said that a college catalogue is one of the more difficult books to understand. As an aid to understanding the catalogue of your college prepare a detailed outline of its contents.
2. Check a newspaper story of a fire, conference, social event. Can you find who, what, when, where, why? What is the common order? Which is most often omitted?
3. In how many ways can a college be classified? Make a list of at least twenty-five different categories or systems into which your college may be placed. Start with size, accrediting, association, type, age.
4. The good library is expertly organized. Explain this statement.

**PART 6**  
**Examinations**





## 32 How to Prepare for and Take Examinations

Students who have been serious and thorough in the mastery of all study suggestions will not face an insurmountable hurdle in preparing for or writing any examination. No quiz, mid-term or final examination will be an ordeal; rather it will represent an opportunity for expression.

To develop a proper attitude toward examinations, which still hold an important place in the schedules of higher institutions, you should understand why they exist. First, they show *the progress that both instructor and students are making* in the course. The results should serve the instructor in two ways: guidance in planning the course to meet the needs of the individuals in the class, and a basis for distributing grades. You should use the information to guide your future study activities: to continue to use the same method of preparation for the course if you have a satisfactory rating, or to confer with your adviser and instructor to discover better ways of attacking study if you have earned an unsatisfactory grade. The student is adopting the right attitude when he regards the examination as an opportunity for him to discover his strengths and his weaknesses.

It is also true that students are more likely to engage in *regular, consistent daily study* when they know that a final examination is scheduled. There exists a need for associating and integrating the ideas from one class hour to the next throughout the semester, and for final reviewing. Because of insights

gained in a last intensive summarizing, students are better able to give meaning to points that were once vague, and to gain a unified picture of the whole course. Examinations serve a real purpose when they bring about organization of thought.

### HOW TO PREPARE FOR EXAMINATIONS

The individual who has been a student in action, as well as in name, does not face the impossible in preparing himself adequately for examinations. It is the not-too-well prepared *guest*, mistakenly and temporarily matriculated as a student, who has a real cause for becoming frustrated.

Getting ready for final examinations is no last-minute task. Ideally, that preparation has been going on from the very first day of classes. Some suggestions that lead gradually toward this state might be listed as follows:

1. Attend classes regularly.
2. Plan and maintain a study schedule.
3. Review daily and weekly.
4. Examine the instructor's comments on every assignment and quiz.
5. Confer with the instructor when in difficulty.
6. Read widely and critically.
7. Revise and review notes systematically.
8. Practice efficient ways of learning.
9. Keep physically fit.
10. Keep a progress record.

*Devise a Special Review Schedule.* Special reviewing for final examinations should start at the beginning of the last week of regular classes and continue until the last examination has been written. It is helpful to devise a special schedule where regular classes and examinations are indicated and remaining study hours are scheduled for review in certain subjects. If you have done creditably over the semester in following the preceding suggestions, and if these last days are carefully planned, there is no reason why you should not live a perfectly normal

existence and, at the same time, be thoroughly prepared for any task that the examination might present.

*Review and Integrate Notes.* The second step involves the question: "What activities does this special review include?" You may well begin with a reading of the notes written in the textbook and those made from lectures and supplementary reading. An earnest effort must be made to associate and integrate the ideas from these three sources. After mentally discriminating and organizing, write a single, brief summary of the course.

*Examine Textbook's Index and the Table of Contents.* Students have frequently followed this summarizing with an examination of the textbook's index and table of contents. During this procedure, they check the important ideas, facts or principles and compare them with those emphasized by the lecturer. The careful student then fixes these essentials in mind by using illustrations, diagrams, charts or some other device.

*Practice Self-Recitation.* Students who recite to themselves have reacted favorably to it as a valuable technique for preparation. They are careful to mark for further study those sections where they lack sufficient factual data to develop opinions or judgments.

*Examine the Semester's Quizzes.* The semester's quizzes and mid-term examination are not to be overlooked in guiding students toward better results the next time. These ought to furnish information on the instructor's evaluation of ideas and his type of questions.

*Formulate Examination Questions and Answers.* A most practical suggestion is to anticipate questions that the instructor may ask, and to develop satisfactory answers for them. This will create an "at home" feeling with questions which helps to relieve the tension during any examination period. Then, too, some of your questions often coincide with the instructor's;

this will give you more time to devote to parts that are difficult. Even though no anticipated question appears in the examination, you will have engaged in a mental exercise which puts you in a state of readiness to proceed when placed in an examination situation.

*Organize Small Discussion Groups.* If you can find other members of the class who are equal in ability, interest and ambition, it is profitable to arrange a group meeting to discuss the course. This session should be scheduled when participants have made a rather thorough review and are ready to contribute and to question for the enlightenment of the group. A second meeting will serve advantageously if each participant submits a list of questions which he assumes could be asked. Each student takes his turn at asking and answering questions.

*Review Main Points and Weak Spots.* Any further review should be done selectively. Students recognize at this point what the principal topics are and whether their understanding of them is complete. They are also aware of their weaknesses and should through research or concentrated study eliminate vagueness and create complete understanding.

*Gather Together Examination Equipment.* And now for some final advice to complete preparations. Before retiring, gather all the equipment that could possibly be required for the examination; such as, pen (freshly filled with ink), sharpened pencils, test booklet or paper, ruler, compass, and so forth. It profits a student to own and to carry a watch so that he can divide his time to his own advantage. Equally important is what not to take. It is sensible to leave in your room all books and notes pertaining to the course. Last-minute check-ups merely lead to confusion.

Thorough preparation for examination which is the result of daily study activities over the semester plus an intensive special review creates confidence, composure, and mental alert-



ness. Since your schedule has permitted you to eat, sleep, and exercise normally during the semester and particularly during these last two weeks, you are physically ready to meet the test. Your only concern about the examination on the next day is to arrive there on time.

### HOW TO TAKE EXAMINATIONS

*Be on Time.* It is advisable to appear about five minutes before the time the examination is scheduled to begin. This allows enough time to get settled and not enough time to become nervous.

*Choose Your Location.* When people enter a moving picture theater, they invariably select a seat which is ideal for them. They know how close to the screen and how near to the center they wish to go in order to hear and see well; if it is not an air-conditioned theater, they are very careful to avoid a hot balcony. Of similar importance is it to find in the examination room a seat where the air and light are good and where there are no friends.

*Write Your Name.* One of the first suggestions is that you write your name on the test booklet or, if the examination is on separate sheets, on every sheet. It is particularly important to do this if the test is objective in nature.

*Follow Directions Carefully and Exactly.* Whether the examination be essay or objective in type, there are usually some instructor-given directions which are planned for a definite purpose. Students who are doing things rather than listening to instructions usually find themselves in a quandary later in the hour.

### HOW TO WRITE ESSAY-TYPE EXAMINATIONS

*Read the Entire Test.* It is necessary to get a general idea of the whole task before beginning to write. Being familiar

with all the questions will prevent overlapping in the responses.

*Jot Down Ideas as You Read.* Facts will likely come to mind concerning the test items. Don't trust to your memory to recapture them. Very roughly they should be written near the questions which they help to answer.

*Decide on Options Quickly.* Frequently there is some choice of questions in an essay-type test. Directions may read: "Answer the first four questions, and then select any six of the last eight questions." These directions should be read carefully and decisions concerning choice made promptly. Once the options are made, no time should be lost wondering about the omitted questions. Get on with the examination.

*Plan Your Time on Each Part.* Often the questions are weighted, that is, they have a certain percentage value according to their importance. If there are ten questions and they have the same weights, one should be able to assume that they are questions of equal difficulty and the writing time will be approximately the same for each one. If six questions are valued as follows: 40 per cent for the first one, 20 per cent for the second, and 10 per cent for each of the others, it should be true that  $4/10$  of the hour, or 24 minutes should be used in concentrating, organizing, and answering the first question;  $2/10$  of the time, or 12 minutes, on the second; and  $1/10$  of the hour, or 6 minutes, on each of the last four.

*Begin with the Easiest Question.* This procedure of reacting to a question which is familiar relieves the tension, develops an answering attitude, and starts the examinee toward feeling at ease. There is less likelihood of information being blocked if the student is feeling successful. Don't try to concentrate on more than one question at a time, and proceed from the simple to the difficult.

*Do More Thinking and Less Writing.* Instructors usually place value on answers that are definite, concise, and pertinent.

As a rule, an absurd answer receives no credit. Read thoughtfully. Understand the question thoroughly before beginning to write. If you know that you have nothing to offer on a certain item, be honest and don't write an answer for the sake of filling in the space. Better luck next time.

*Follow Directions.* *Discuss* and *outline* call for two very different responses. In examinations watch key words like *tabulate*, *prove*, *compare*, and the like.

*Read Over Your Paper.* Don't be in a hurry to leave the examination room. If time permits, see that your answers are numbered and lettered so that they correspond identically with the test items. Check on the English and the spelling. Remember that the elimination of errors increases the value of your paper. Penmanship is a factor that supposedly counts neither for you nor against you, but experiment has proved that legibility has positive effect on your grade.

### HOW TO WRITE OBJECTIVE-TYPE EXAMINATIONS

*Be Guided by the Scoring Method.* If the score is the number right, it is sensible to answer every question; if the score equals the number right minus twice or three times the number wrong, it is wise to respond only when you are sure you know. Usually each section of an objective-type test is preceded by directions and methods of scoring. If there is no indication of the scoring used, the student should feel free to ask the examiner. It is good policy before writing the examination to take the time to check on penalties for guessing.

*Read Carefully.* Objective-type tests measure reading ability as well as knowledge of subject matter. Students should note particularly key words in true-false statements. If one main clause is true, while the other is false, the whole sentence obviously must be marked *false*.

*Answer Questions from the Beginning to the End.* Unlike the procedure in essay-type tests, it is preferable to start with item number one of an objective-type examination and answer as you go along. Too much time should not be spent on those statements about which you are uncertain; they should be checked for consideration at the end if time permits. No student should expect to earn a perfect score on this kind of examination; it is so constructed with very simple and very difficult items that the poorest student will earn more than zero and the best will not approach perfection. If the results contain neither zero nor perfect ratings, then the examination is yielding achievement ratings for every examinee.

#### QUESTIONS AND EXERCISES

1. Do you believe that if end-of-course examinations were abolished your over-all grasp of any given course would be impaired?
2. Which type of examination—objective or essay—do you prefer to take? Why?
3. Do you know of any subjects for which an essay type of examination is impractical? An objective type impractical?
4. Compare the quizzes given over a period of several months in one course. Do you detect any similarity in the formulation of the instructor's questions?
5. If the grades in an examination are uniformly low, on whom would you be inclined to place the fault?

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